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ABSTRACT

This interpretive book explores some of the contexts in modern American society within which toys seem to be very important and discusses some of the conflicting interpretations regarding those contexts. Part I, which concerns the toy in the family, discusses the toy as bond and obligation, as solitariness, and as consolation. Part II discusses the toy as technology, focuses on video games and the toy as machine, the technology of toys for infants, and toys as tools for infants. The toy as education is the theme of part III. Discussion in this section explores the toy as achievement, as the work of the 1-year-old, and as play and work during the child's second year. Part IV, which concerns the toy as market, discusses the toy as novelty and agency, describes the idealization of toys, and offers conclusions. In addition, the larger context of history is explored in order to discover forces that seem to underpin what is said about family, technology, and education. It is concluded that the discussion turns on the four toy contexts, eight ideological interpretations, and three kinds of toys: toys of acquaintance, toys of age- and sex-stereotypes, and toys of identity. Notes, a list of informants, and a selected bibliography are appended. (RH)

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TOYS AS CULTURE

BRIAN SUTTON-SMITH

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What are toys? What do they represent beyond the literal image? Do they affect growth—are they learning tools, baby sitters, trivial objects with no particular significance? Do they reflect or create? One year the stores can hardly keep up with demand for simple, soft, cuddly dolls. Another year witnesses the mass sales of sophisticated video games. Why?

Toys As Culture is the first systematic analysis of the role of toys in contemporary society. To look at a toy and see just a shape, a color, or a certain level of complexity or enjoyment is to see only a very narrow aspect of its being. Employing history, anthropology, and psychology, as well as the first-hand accounts of players themselves, the author explores the myriad of meanings behind the toy.

Though toys represent a billion dollar industry that touches virtually every one, we have little knowledge of how particular toys evolve or whether they have any importance in the nurturing process. We buy, we give, we play—but with no clear understanding of the motivation or consequences of our choices. Toys are, for the most part, taken for granted. But there is much evidence that suggests that toys are more than playthings, that attachments are formed, and that they often offer companionship in those difficult years during which we are learning to become solitary individual achievers.

Toys
As
Culture

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TOYS
AS
CULTURE

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DEDICATION

To My Wife Shirley,
and to My Children, Emily, Mary, Leslie, Mark and Katherine,
Who Were My Own Soft Toys,
and Who Assuaged the Solitariness of Which This Book Speaks,
and Its Writing Required.

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CHAPTER 1

Introduction: The Mad Hatter Kingdom of Toys

My first public experience with toys occurred on a television guest trip. I was doing a circuit as a television co-author of a book my wife, Shirley Sutton-Smith, and I had written called *How to Play with Your Children (and When Not to)*."[1] This was the early seventies, and we were enthused about the discoveries of a number of psychologists, which seemed to show that being playful and being creative were connected. So we wrote the book to advocate that parents should pay more attention to young children's play and also spend more time playing with them. However, most readers seemed to like most the "when not to" piece. It was apparently a relief to be told not to interfere too much with the children's ability to develop independently through their own play.

Up until this time I had not had any special experience with toys, except what a parent of five children nowadays inevitably gets. My own childhood was in the Depression years, so my personal experience with toys, although not absent, was hardly relevant to the modern era of toy supermarkets and billion-dollar industries. I had, however, been studying children's play and children's games for some 20 years and written a number of books about them. So I was intrigued by the problem of how toys fitted into all of this. They were supposed to be connected with children's play in one way or another, but there was very little written about toys that demonstrated anything that would convince a skeptic. The origin of this book, then, was my search for an answer to the question of what difference toys made to children.

Although it is possible that they make very little difference at all, we know that some 800 companies sell about 150,000 different kinds of toy products (with about 4,000 new items every year), involving about 250,000 tons of plastics, 200,000 tons of metal at 150,000 retail outlets, and employ about 60,000 people.[2] This means that toys make a big difference to these workers, economically at least. It is true that the most cynical speculators about toys suppose them to do nothing but provide exercises for children in becoming expert mobile consumers. "We are training little children," such a person might say, "to be excited by novel childish things, which, after a brief period of exploration, they can discard. Like their parents with furniture, or clothing, or household gadgets, or automobiles, children are learning how to consume, how to enjoy objects momentarily or at some length and then to throw them away or give them to the Salvation Army and get a tax deduction. People who learn these habits know also that they must work hard to make money in order to be able to throw away the gadgets they buy. This cycle of consumption and planned obsolescence is good for business, good for the government. It indicates a new kind of human nature." In this view, toys play an essential role: they are the possessions with which children can learn the materialistic culture habits of late-twentieth-century, American civilization.

Meanwhile, on the media circuit, I was finding that radio and television interviewers and the listeners and viewers who called in to ask questions were often passionate believers in the effects of toys on children. Most of them made it sound as if toys were vitally important to the future of the human race. Very strong opinions were voiced on whether or not sex-role stereotyping in toys had an effect on how boys and girls developed; on whether toy guns were good or bad for children; on whether there should be dolls or toys which showed the whole body as it actually is, with sex organs and all; on whether toys were ever of any educational value; on whether they were dangerous; on whether they stifled the imagination; and on whether advertising manipulated parents by putting pressure on children. It seems to have been television advertising, in particular, that had forced these issues to surface and, as a result, generated consumer groups concerned with protecting children from new and alien forces in modern society.

These, then, were some of the questions raised, and, although the answers to them were often wildly different, everyone seemed to assume that toys were having a powerful effect. But I often came away from these sessions, wishing I could summon a psychiatrist and give him some of the phone numbers of the callers or even the address of the television-station announcer. I remember one such TV gentleman, who had in his head the single notion that toys were dangerous. It was his *one* idea. No matter what I said about play or about toys, he kept returning to the theme: "But they are dangerous, aren't they?" In front of us at the time we had some soft dolls, some wooden blocks and a small plastic train set on plastic tracks. I agreed with him several times that toys could be dangerous on occasion. For example, the most dangerous toy of all is the bicycle. I broke my two front teeth falling off mine at the age of eleven years. I was racing down the street with my next door neighbor, and our bikes clashed together in such a way as to pitch me over the handlebars onto my face. Anyway, my announcer persisted, and I looked helplessly at the relatively inoffensive blocks, plastic train and soft dolls in front of me. Finally, in some exasperation, I admitted, "Well, I suppose if I take this plastic train set and hit you hard enough over the head with it, I might hurt you a bit." That finished his line of questioning.

What I am getting at is, that it's a mad-hatter world out there. There's a great deal of public involvement with toys and many opinions expressed in a vehement way, although there is often no hard evidence about any of it. I was riding home from work one day and I heard a conversation on the radio about the *Cabbage Patch Dolls*. (These are the famous line of soft and homely dolls mass-marketed by Coleco in the Christmas season of 1983, all of which were sold with adoption papers and with the prospect of continuing birthday cards. All were supposedly different in some small detail from each other. The line of dolls developed from an expensive hand-made line sold in the same fashion and, because of shortages, created incredible consumer eagerness.) The conversation went something like this:

> *First speaker:* "I think these dolls are an insult to everyone in the adoption profession. Adoption is a matter of heartbreak for the natural parents in having to give away their child. It is a contract full of pain and unhappiness. And these dolls trivialize the whole matter and treat it as some kind of fun for children. The dolls themselves are ugly, suggesting that children who are put up for adoption are ugly. I don't think it is right that children should be introduced to adoption issues in this way."

> *Second speaker:* "On the contrary, I think for the first time the idea of adoption has become something more universally understood. The fact that the dolls look ordinary is good, because most people are ordinary, and children should not expect anything special of adoption either."

About the only way to comment on this kind of dialogue is to offer another which might go something like this:

> *First speaker:* "I don't believe children should be allowed to play with toy motor cars. These are such small objects and nothing like the real ones. Children will get a totally wrong idea of the size, dimensions and danger of real motor cars from playing with these miniature ones. It seems probable that many children will be run over because they will think that real motor cars are as harmless as the ones they play with."

Second speaker: "On the contrary, play with such motor cars introduces children to the principles of motor control, to the directionality of right and left, and to the rules of the road. They are a buffered form of learning, where one can participate in some of the functions of the automobile world without any of its dangers."

Or consider this imaginary dialogue:

First speaker: "I don't believe children should be allowed to play with dolls, because they often put them under water in the bath and drag them around on the floor behind them, thus not learning a proper respect for life and predisposing them to dangerous forms of behavior, which they might carry over into motherhood."

Second speaker: "I think by looking after the dolls, by feeding and washing and clothing them, they are introduced to the principles of mother care."

Now, all of these speakers seem to believe that playing with a toy has a direct relationship to real-life behavior. The First Speaker in each dialog seems to believe that the relationship is a literal one. What you do to the toy or learn from the toy is what you will do in real behavior. The Second Speaker in each dialog seems to be working at some other level, suggesting that children are not so much learning specific behaviors as principles of behaving. That is, the first, in each instance, sees the child as a dumb willing Hans who will automatically carry over behavior from the world of toys to the world of everyday life. The second sees children as sophisticated enough to ignore what doesn't fit everyday life, but nevertheless to apply the positive principles of socialization learned in play to everyday reality. Neither First Speaker nor Second Speaker explains how any of this happens, only asserts that it does. One may ask, for example, whether a child who plays with a toy gun is stupid enough to assume, when s/he gets a real gun, that, if used in the same way, no one will get killed. Or one may ask, alternatively, are children really intelligent enough to learn that toy guns don't kill but real ones do? Whether you take the dumb view of children or the bright view, in both cases toys are assumed to have profound effects.

And there appear to be valid positions on both sides. "We have case after case of children being shot by other children or by other people with real guns they thought were toys," says Barbara Lautman, communications director of Handgun Control Incorporated. "A conservative estimate would be 100 children a year who are killed or seriously injured." This group supports a ban on the manufacture and sale of toy guns.

The National Coalition to Ban Handguns, however, does not have a formal position on toy guns. According to the Executive Director, Michael K. Beard: "There's simply no reliable research on the subject, and we're not willing to go out on a limb and say there's a relationship that we're able to prove. I played with guns as a kid, and I don't think there's a male on my staff that didn't. It would be ridiculous to make a statement."[3]

On the other hand the International Playground Association has taken a position against War Toys (tanks, soldiers, action dolls, weapons)—not against children playing at war, only against adults aiding and abetting that play by providing the toys, as if implicitly supporting the activity. They argue that, after all, children are not given toys to help them become thiefs, or drug addicts, or pimps, and they should not, therefore, be given toys, which, at the very least, sanction the notion that war at some level (even the toy level) is acceptable.[4]

Others, on the contrary, take for granted that little boys have always played at war, and will always continue to do so as long as we live in a world where there has been a war almost every year somewhere on this globe for the past 2,000 years. Playing war is playing patriotism, playing John Wayne, playing Darth Vader, they say.

There is, however, no end to these "voices" about toys. Consider advertising aimed at children. A 1978 report by the Federal Trade Commission staff argued that the $600 million spent annually by advertisers on children's TV programs deceive children who are too unsophisticated to understand the messages or to judge the products. A Boston group called Action for Children's Television, which represents a coalition of various health and consumer organizations, had urged the FTC to set guidelines limiting advertising on children's programs. The 1978 report by the FTC staff said that the "possibility of unfairness or deception in children's advertising was sufficiently great to justify a rule-making procedure to explore the issue further." Some of the proposed alternatives were to ban all advertising directed at children under the age of eight years, to ban only advertising for highly sugared cereal foods directed to children under 12 years and to require substantial warnings for products containing substantial amounts of sugar. It was said also that young children do not have the ability to discern whether the toys as advertised are the toys they get.[5]

But as the hearings dragged on, it became clear once more that, as far as toys were concerned, there was again little reliable evidence that young children could or could not make discriminations in such a way that would inevitably do them harm. There were those who argued that indeed the evidence showed that, certainly by ten or eleven years, most children become very cynical about television advertising, and thus are by then well prepared to be skeptical consumers in the marketplace. Of course, when the tremendous pressure brought by the industries that had the most to lose by such a ban was brought to bear on Congress and ultimately on the Federal Trade Commission itself (and with Ronald Reagan in the White House), it was announced on September 30, 1981, that the FTC had dropped its attempt to set up rule-making procedures about whether advertising to children was unfair or deceptive. The commission said, "It could not justify sacrificing other important priorities in continuing its inquiry." And as Fred Furth, a lawyer for Kellogg, said: "Those consumer groups wanted the commission to become a national nanny who would decide what could be advertised on children's programs."

But if the matters at stake here—how dangerous toys are, whether children's war-play should be promoted through war toys, and whether advertisers should have free access to children—are of considerable importance, many other issues of perhaps less moment have also angered the public. One continuing controversy has concerned the worth of various novel kinds of dolls: glamor dolls, action dolls, and anatomically correct dolls. As one parent said in an interview: "I can stand anything, but I can't stand those dolls that crap." And on one of my television interviews someone on the phone raved about the "filth that comes out of the bottom of 'Baby Alive'." For others, it was the sheer horror of having their fingers in the mouth of a baby doll that could suck. For writer Rose Goldsen, it was the promised anatomy that was not realized.

> Yet, even a cursory inspection of the dolls promoted as 'anatomically correct' reveals that the term promises more than it delivers. The little boys have penis and scrotum, to be sure, but there's not a single navel among the lot, not an anus, nor are their nipples pigmented. These dolls have no tongue, no gums, not a tooth or suggestion of a tooth; their painted lips rim a gaping hole. Ears are molded in a piece with the head, eyebrows are painted on. Eyelids, eyelashes, they have none. No anatomically correct nostrils. Their arms and legs are not articulated. Fingers are not jointed nor are toes. Poor Li'l Ruthie's vagina lacks what might be called labial flexibility."[6]

Asked one of my interviewers, "If children get to play with dolls like this when they are infants, won't they want to be playing 'doctors' earlier than they should? And why put genitals on Baby Joey, in any case? Isn't it better to leave something to the imagination?"

The all-time anathema for many professional women, however, as well as the all-time best-selling doll in the modern era and the basic reason for the success of Mattel Toys is the doll *Barbie* with her various cohorts, her male companion Ken and her hundreds of dress and leisure accessories. Even after the era of women's liberation she is often perceived as a symbol of empty glamor. There is also the objection, again, to having a doll with—in part—realistic sex anatomy, this time breasts, although the realism is perceived as partial. Rose Goldsen writes: "They [the breasts] make no pretense of being anatomically correct, of course; no nipples, no pigmentation, no network of veins. Those breasts are strictly to drape clothes around, to suggest fantasies having to do with self-decoration. They have nothing to do with fantasies about providing milk for infants, nothing to do with succorance and nurturance of babies . . . "

Some years ago a new version of Barbie was created, called Growing up Skipper, who could be made to grow up from a flat-chested child to a bosomed teenager by rotating the left arm. A writer in *Ms.* magazine wrote: "The mind reels at the possibilities for 'creative' play—eight-year-old girls trying to grow their own (breasts) and thereby twisting one another's arms into a mass of torn ligaments, small boys staging neighborhood porno exhibits.... One wonders whether men would tolerate a comparable male toy. Can't you see it: Growing up Buster—twist his leg, his penis grows and his testicles descend."[7]

The boy action-dolls (G.I. Joe, etc.) also come in for their share of criticism. Janet Weaver, Director of the National Child Research Center in Washington, says, "They suggest to children that all problems can be solved with action... There are no steps to reach a solution, just 'pow' and there's your answer." She was also concerned that grown-up dolls encourage children to "rush out of childhood, finding boyfriends and girlfriends at the age of six." Even Margaret Mead felt cause to be concerned that real-life dolls might affect children very differently from fictional dolls. "It's fine," she says, "for children to play with Sesame Street dolls, Winnie the Pooh bears or miniature Waltons who are three dimensional extensions of favorite stories or programs. But if we give children a doll of the President's wife we really don't know enough about what we are doing.[8]

Her statement is true of all the quotations and dialogues of the preceding pages. No one knows enough about what they are either saying or doing. Those who are making millions of dollars out of toys put their money into making toys that will sell better, not into finding out through research what toys do or do not do to or for children. This does not mean that many of their toys are not well made, nor that there hasn't been industry-wide concern about such matters as improving toy safety.[9] But on the other hand, social scientists have not paid much research attention to toys either. In their hundreds of thousands of research studies over the past fifty years on children, they have devoted very few to toys as such. Educators, for their part, are typically involved with controlling or getting rid of play rather than understanding it. There are some important exceptions to this generalization, however, as the concept of the "play way" in education implies. Despite the fact that the most important thing to young children is their play, and that a great deal of that has to do with playing with toys, there is nevertheless little study of the matter. *Play continues to be the most neglected and has now become the most exploited arena of child life*: neglected by those who appoint themselves scientists of childhood or educators of children, and exploited by companies who make toys and build playgrounds for children. The question for this book is how one might begin to think seriously and systematically about the subject matter of toys. How might one develop a social science of toys, seeing none as yet exists?

Because the uses of toys throughout history as well as the controversies about them today are multiple, one has to choose some point of entry more or less arbitrarily. My point of entry will be the frequent argument over whether toys promote a kind of mechanical usage or whether they lead to innovative play. This controversy has been stated in the following way by Roland Barthes:

> . . . faced with this world of faithful and complicated [toys] . . . the child can only identify himself as owner, as user, never as creator; he does not invent the world, he uses it; they are prepared for him, actions without adventure, without wonder, without joy . . . they are supplied to him ready-made; he has only to help himself, he is never allowed to discover anything from start to finish. [However] . . . The merest set of blocks, provided it is not too refined, implies a very different learning of the world; . . . He creates forms which walk, which roll, he creates life, not property: Objects now act by themselves, they are no longer an inert and complicated material in the palm of his hand. But such toys are rather rare.

He continues:

> The bourgeois status of toys can be recognized not only in their forms . . . but also in their substances. Current toys are made of graceless material, the product of chemistry, not of nature. Many are now molded from complicated mixtures; the plastic material of which they are made has an appearance at once gross and hygienic, it destroys all the pleasure, the sweetness, the humanity of touch. A sign which fills one with consternation is the gradual disappearance of wood, in spite of its being an ideal material because of its firmness and its softness, and the natural warmth of its touch. Wood removes, from all the forms which it supports, the wounding quality of angles which are too sharp, the chemical coldness of metal. When the child handles it and knocks it, it neither vibrates nor grates, it has a sound at once muffled and sharp. It is a familiar and poetic substance, which does not sever the child from close contact with the tree, the table, the floor. Wood does not wound or break down; it does not shatter, it wears out, it can last a long time, live with the child, alter little by little the relations between the object and the hand. If it dies, it is in dwindling, not in swelling out like those mechanical toys which disappear behind the hernia of a broken spring. Wood makes essential objects, objects for all time.[10]

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This speaker has not remembered his childhood splinters! Much the same rhapsodic point of view is to be found in a 1980 UNESCO French publication on children's play:

> More serious still is the fact that an industrially made toy, stereotyped and technically perfect, forfeits much of its value as a plaything. It is a closed object, setting up a barrier against creativity and imagination. In almost all instances an elementary plaything is preferable, be it stick or pebble, which the small player can turn into a musical instrument, a tool, a weapon, a car or a boat, a doll or an animal, as his mood dictates.[11]

Interesting and widespread as these kinds of views are, they appear to be matters of prejudice. There is no evidence that the modern child either is or is not more creative with his current "plastic" playthings than were his predecessors with bits of wood or stones. We do know that today's child is somewhat more domesticated than were his predecessors of the last century, somewhat less cruel and savage than they were with their toys and their play activities.[12] And we have considerable grounds for thinking that the modern child has many more opportunities for creativity than his or her predecessors.[13] What we probably find mirrored in these prejudices against the new and the mechanically contrived is a favoring of craft toys, ones made of wood, which in earlier times could be afforded in general only by those people of higher status. Or we have a nostalgia for the kind of open-ended rural pastimes and home-made toys which were sometimes the good fortune of children of that earlier, more bucolic era. More certainly we have Roland Barthes' distaste for the consumerism of modern capitalist society. It is perhaps paradoxical for French authors to lament the bourgeois character of mass toys when French toys have typically served the luxury trade. More to our point, the writers of these two quotations seem to assume that one can simply look at the character of toys and make predictions as to how they will be used and what their effects will be on human creativity. It is very doubtful if that is possible. One needs to know the context in which the toy is used to know much at all about its effects.

In the chapters that follow we take up some of the contexts in modern society within which toys seem to be very important and discuss some of the conflicting interpretations which are to be found in those domains. Some of these "narratives" of toys are already well known; others have occurred to me as my analysis has proceeded, and I offer them for the hypothetical value that they might have. The present book is divided into four sections, which deal in turn with what toys might mean to the *modern family*, what they might mean in terms of *technology and science*, what they might mean in terms of *educational history and practice*, and what they might mean in terms of *the market place*. What I offer in effect, is a number of stories about toys which prevail on the current scene. I am sure there are yet many more stories about toys than have come to my mind, but I have hope that this interpretive work will propel the matter before the public who believe that they regard their own children as of great importance but paradoxically often prefer not to regard what those same children prefer to do spontaneously as of much importance. Furthermore, it is my intention in this book to make it clear that toys are matters of considerable cultural importance, not just something that children play with.[14]

PART
I
The Toy in the Family

CHAPTER 2

The Toy as Bond and Obligation

For most of us the toy is something we give to children at Christmas. It is an economic fact that 60 percent of all toys are sold in this season, and that most of the rest are given on birthdays. So, whatever toys may have stood for in history and whatever they may tell us about human nature, they are, first and foremost, Christmas gifts.[1]

If the man from Mars arrived in the U.S. at this time he would notice that the main activity with these things called toys occurs at Christmas time (seven billion dollars is spent on them at that time); that on December 25 they are wrapped in hundreds of parcels along with other kinds of gifts and placed under Christmas trees across the land; that the very first thing in the morning the children come running down the stairs in their pajamas and in wild excitement begin to unwrap their gifts (pretty soon there is paper everywhere, and, if you are not careful, you are treading on toys, or on children); that some of these children are already playing with one of the toys that they have unwrapped and forgetting all the rest, and that other children seem to be consumed mainly by unwrapping, going on and on as if they will never stop; that in other families, on the contrary, everyone takes turns at opening one parcel at a time and showing it to everyone else, and that as a result they do not finish the unwrapping until after lunchtime; that there are other families that do all of this the night before Christmas, or some of it the night before and some of it in the morning, or some who do a little bit every night the week before just to spread it out, and others who give presents on January 1 or on other feast days; and that during all this unwrapping some children yell with excitement and others burst into tears; some families are made very happy by all this activity and some are made very depressed; but that in all these families once the great day is over, after so many months have been spent getting ready for the day itself, the days that come afterwards seem strangely empty. That is what the man from Mars would see.

Any discussion of toys in the U.S. must begin with this great Gift Festival. And to understand what this means, we have to look at all our celebrations—Christmas, Thanksgiving, birthdays, Presidents' holidays, Mother's Day, Father's Day, Easter, Valentine's Day, and Halloween—and realize that most of these have become FAMILY DAYS. Originally some of these festivals were mainly religious occasions, notably Christmas and Easter, and still are. Others were celebrations of the change of seasons from Fall to Winter (Halloween) or from Winter to Spring (Easter), and their rituals were concerned with the magic of survival in the face of changes in nature. Others were and are celebrations of nationhood—Lincoln's and Washington's birthdays, Independence Day, Veterans' Day, Columbus Day, and Memorial Day. During this century, however, the celebration of these holidays has become increasingly centered on the family.[2] To understand toys we must first know something about Holidays, about the Family, and about Gifts.

Holidays

By a "holiday" we can mean many things, but customarily it means more than usual amounts of excitement. It means celebration, it may mean doing things that aren't usually done; eating more, drinking more, playing more games, wandering about, seeing exhibits, talking more, laughing more; being more aggressive, more impulsive, more sexual, more insulting; or simply idling more. We do all of these things because these are not the things we can usually do and remain secure, healthy, or successful. Our normal safety, security, and success require that we don't upset the usual order of human society or of our own emotional and personal lives. But our ordinary lives also create the tensions of overwork, and of conflict with others, with bosses, with spouses, with timetables, and with confinement, which means that while holidays have the advantage of excitement, ordinary life has the advantage of security. So we swing between one and the other, always seeking that balance that makes both possible. Some people may get too much of one (the playboy), and some can get too much of the other (the workaholic).

According to current thought, holidays are most likely to reflect those parts of society where the pressures and conflicts are felt to be the greatest.[3] Thus, in the past, when class divisions were a great burden, the festival was likely to be a reversal of that class division, as in the traditional Mardi Gras, where the "lowly" people pretended to be kings and often did insult and even injury to those who were of higher status. Even in the current modified New Orleans festival, ordinary members of society dress up like kings and queens and toss bounty from their floats, which the crowds scramble for. Never mind that they are tossing out relatively worthless plastic necklaces, as if they were the Queen's jewels. There is still an echo here of those divisions in society which, though mocked in the festival, are not changed in everyday life.

Another example is the ancient Mesopotamian festival (3,000 B.C.), where once a year the traditional fool was made

King for three days and could rule, thus celebrating the idea that the real King could be removed, even though he never was. There is the apochryphal story that on one occasion a King died during the reign of the fool and as a result the fool did become King. (Hence, our saying, "play is the fool that might become King.") In festivals we can imagine that what we do then is the way that life should always be. Why shouldn't we be giving gifts all the time? Why shouldn't we be on holiday all the time? Why not have weekends seven days a week? Why shouldn't the spirit of good Christmas fellowship persist throughout the year? Why shouldn't the family feel as fond of each other on the other 364 days?

But if class division was what was held together in the old festivals and celebrated by its reversal on those occasions, and if festivals usually reveal the major conflicts in any given society, then we might conclude from the modern tendency of turning all festivals into family festivals, that the family is the endangered species of modern social forms. Perhaps we have all these family festivals because we fear that, in the modern world, the family is falling apart.

The Family

By many standards the modern family is falling apart. Three hundred years ago the family was the center of most work life, most political life, most religious life, any educational life, and most reproductive life. In this century most of these functions are attended to elsewhere. There are factories, political parties, churches, schools, and family planning centers. In addition, people succeed in modern society by showing individualistic ambition in school and in business. They are rewarded for putting to one side their marriages, their children, their families, their communities, their churches. Although most persons make compromises between their public worlds of work and success, and their private worlds of intimacy and the family, it is increasingly difficult to do so. The divorce rate has soared; family and marriage counseling is a growth industry, as are books by specialists on how to raise children. The family is a crisis issue in modern society.

It is not surprising, therefore, to find both that the family is in crisis, and that the major holidays in modern society help to enhance the value of the family to its members. On Thanksgiving and Christmas, in particular, we can attempt to recover from the divisive effects of the modern world, and put our family world together once again. These are just the more obvious examples of the healing value of holidays for modern persons. As every marriage counselor knows, if modern marriages or affairs are to survive, their members must constantly find time for a recurrent holiday between themselves: good times in which they relax their usual work habits or compulsions and take time out to enjoy together the license of impulse or of holiday, entertainment, or religious ritual. Holidays bring together those whose relationships the pressures of life cause to fall apart. And in thus reassuring the members about each other, they nourish in each other the feeling of being a more complete person, rather than just that specialized and highly technical or subordinated person required in his/her place of work. The family that succeeds nourishes the whole person. The family holiday celebrates those bonds and restores the members to a sense that life is indeed worth living and not just a one-sided preoccupation with work.

Gifts and Obligations

It is within the general context of the modern family and its holidays and the fact that 60 percent of toys are given to children at Christmas that we come to understand the modern meaning of toys as gifts. The modern idea is that we are giving children or others a gift to show our love or friendship. Apart from hoping they will appreciate it, we expect no specific rewards in return. And certainly that seems to be the case when we give toys to children. We hardly expect them to understand the reciprocity of gift-giving yet.

There is, however, a more ancient idea of *gift exchange*, which says that the giver does indeed expect something in return, but not necessarily other gifts.[4] What the givers of toys might seek in return could be an increase in love from children or neighbors or relatives or a recognition of their goodness as parents, or their prestige as those who can afford to give such gifts, or their thoughtfulness for having prepared such appropriate gifts. Imagine how we would feel about Christian neighbors who refused to give any gifts to their children at Christmas. They would hardly seem human to us. They might seem like monsters. Clearly there is a tremendous pressure to give gifts to children at Christmas. Similarly those who receive the gifts are expected in due course to return something of equivalent value, and until they can do so theirs is a position of relative social inferiority. In modern terms what a hurdle these children have to unburden themselves from. Every Christmas there is the annual parental demonstration of conspicuous consumption. Toys are poured upon children, and are often literally destroyed under foot or with careless abandon within weeks of the Christmas event. My informants indicate that being children, they at first can make returns by kisses and cuddles or by being "good" for months beforehand in prayerful hope that Santa Claus will bring them this or that television advertised item.[5] As the years pass they enter into a whole variety of exchange contracts with their parents for good grades, clean rooms, tooth brushing, hanging up clothes, removing clothes from stairs, drinking milk, eating vegetables, doing homework, hugging and kissing parents, saying they love their parents, vacuuming and dusting, taking out the garbage, taking showers, but most of all, by not fighting with each other. Most informants report that their parents seldom keep such threats and that sometimes they themselves feel considerable remorse for having been so bad and still gotten their presents. One informant spoke of Santa's Elves who were busy spying on one and making their reports to Santa. For some, these Christmas "contracts" are not too much different from the bargainings and bribes that go on throughout the rest of the year in which gifts are used for good grades or good behavior. Then there are the occasional despised relatives who give copious gifts but expect all kinds of honor and return for their magnanimity.

After Christmas parents often remain interested in the toys they have given to their children, thus maintaining their link both to the gift and its unspoken significance in their personal relationship. The gift helps to maintain the social bond between the parties, parents and children. Each usage of the toy brings gratification to the parent who planned and worked for it, and equally brings mild despair if it is quickly discarded and becomes junk underfoot.

The Festival of Toys

This then is the logic we use for saying that the most important single interpretation of toys in the family must be that they are part of a festival in which gifts signify the bonds and controls within the family. They mean an obligatory holding together of the parents and children against those many forces of modern society, including divorce and ambition which threaten to separate them. Obviously there are many other ways in which modern families hang together, many other festivals, and many other kinds of personal and religious dedication. But the point here is that toys are one of the contributors; one of the gifts to remind members that they have a "togetherness" that they wish to preserve. However great or small the contribution of the toy to the family, it is this contribution that makes the toy as "*sacred*" in modern civilization as it has been in so many others through history. It is not that we bow down to it, or think that it is magical, or put it in coffins to accompany the dead. But in our modern secular civilization we have come to judge what people think is terribly important by where they put their money. In these terms what we value most highly is a modern secular version of what we think is most sacred.

We do not want to lose our families or our children. They are among our highest values. And insofar as the gift of toys contributes to that value, they are a form of modern sacredness. The moral of our story so far is that although toys are given as gifts, they are not for free.

CHAPTER 3

The Toy as Solitariness

The very family that gives toys as gifts on its Christmas celebration of togetherness, does not, paradoxically, expect to spend any great amount of time with the child to whom it has just given this toy. On the contrary, the toy is given so that the child can occupy itself without making any great demands on the parent's time. The parent who gets down on the floor to play with the child on Christmas Day is usually doing a most remarkable thing—something that may seldom be done again the rest of the year. These are, after all, busy parents who are committed to their own work or their own success in the larger society and who do not have much time left over to play with their children. Nor would they wish the children to expect them to. Success in the modern world is generally a relatively lonely pursuit.

We know that life in the Middle Ages was generally life in a crowd.[1] Leadership in this crowd was given to those who had magical title to it or who could command their fellows by the arts of oratory and rhetoric. They had to have the kind of spell-binding power we associate, in the present day, with Churchill, Martin Luther King, Hitler, Gandhi, or Ayatollah Khomeini. With the growth of science and industry, leadership has increasingly gone to the inventors and creators who achieve their "wonder" largely by intensive work over long periods of time, often all by themselves. Newton, who created the first mathematical account of the Universe and is, therefore, the father of modern scientific theory, was a cranky individual, whose theories were arrived at through solitary work and achievement. Whitney's cotton machine, Edison's electric lamp, Bell's telephone, and Fulton's steamboat were not invented in a crowd but in their own workshops; and these inventions usually followed years of unremitting, solitary labor. Although the work of invention in the twentieth century has more often been performed by collaborating teams in large industries, the individual contributor is still expected to be able to work consistently and reliably over long periods of time with his/her own piece of the larger enterprise. Even modern office work gets done on the typewriter or computer by a worker concentrating on a "focused field" at the desk. Sociability is *recreation*—not the activity of the modern scientific and industrial processes.

The rise of the toy as a child's gift in modern society can also be seen as the rise of an instrument that would accustom children to just such solitary preoccupation and solitary striving for achievement. One criticism of the modern toy has been that it does just that—makes children too solitary and too unsociable. The video game, in which children spend many hours all by themselves working at that computer-based activity is the latest of whole series of "toys" and "games" for children that have been criticized for making them unsociable.[2]

In these terms the toy is a model of the kind of isolation that is essential to progress in the modern world. Just as it, as a miniature, is abstracted from the world about it, which it represents in some way, so must growing persons learn to abstract themselves from the world around. First the monasteries of the Middles Ages, and then the universities and now the schools have been ways of isolating their subjects from the ongoing streams of everyday communal life, in order to teach their members more abstract, more orderly, more logical and more theoretical ways of thinking. These are ways of thinking which approach the needs of modern physical science and modern industry. In science the manipulations of experiments and of machines, require the ability to withdraw elements out of their usual contexts and to manipulate and permutate them in more controllable contexts where their essential character can be discovered. The argument presented here is that the human condition has mimicked the scientific condition. What we have done with atoms we have done with individuals. The habit of mind that makes the abstractions of science possible, are habits built up by detached and often solitary examination and inspection of the data at hand. We isolate variables in order to carry out experiments, and we isolate our thinking selves in order to be capable of carrying out experiments. We are the impersonal products of our own successful impersonality in conquering matter and space, and the use of the same analytic and impersonal processes in industry.[3] With the toy, we habituate children to solitary, impersonal activity; and this is a forecast of their years to come as solitary professionals and experts. It is important here to emphasize that what is being discussed is a training of the mind. It is the years of toy play, followed by years of academic study (which has to be done largely with one's own mind going over and over material), that lead to the expert who has within his or her head, banks of information to be called upon when needed. The person may actually work in the quite social context of medicine or business, but what keeps them there as long as they are efficient, is themselves as a resource, as a repository of internalized information and skill.

We can now place alongside our earlier picture of mountains of toys under the Christmas tree, another image of those great modern kiddie cities or toy emporiums, which are as large as barns and contain hundreds of thousands of kinds of toys. While Christmas has to do with gifts, these toy banks have to do with the means to solitariness. Each toy is so many moments, minutes or hours that some child will spend on their own preoccupation with the processes that the toy allows. We have the paradox then, that the toy given to the children to unite them with the family and bond it together in "material" valorization against the divisive forces of modern society, then divides the family up within the home, as each member goes his/her own way, the parents with work, chores or leisure, and the child with a toy. That which was introduced to unify is also meant to divide.

The History of Toys

Any readings in the history of "play" will quickly show that there is little mention of toys, either in earlier historical times or in cross-cultural studies. It is not that there were no playthings. In tribal societies dolls were constructed for little girls and bows and arrows or spears for little boys; and children played with mud, twigs and stones and made facsimile houses and cattle. But, in general their usage of objects were social, a part of teaching by adults, or play with other children. There were no baby's toys even though babies in a few societies were played with by (female) adults and (female) children. The predominant nature of play throughout history has been play with others, not play with toys.[4] Today, although children will still nearly always prefer playing with other children than playing on their own, for the greater part of their time they are usually confined to playing alone. This is more true of suburban children than of city children. The wealthier the child, the more likely s/he is to be confined to his/her house and bedroom stuffed with all kinds of toys; and the more likely that s/he will be an only child or, at best, have one other sibling of a different age with whom it is difficult to play satisfactorily.

Thus, the history of play is largely a history without toys for children. What we know of toys is usually confined to adult and sacred purposes, though there is some evidence that—on occasion, at least—objects that were used for sacred purposes might then be given to children to play with. This seems a strange idea to us, but has been cited often enough for us to know that earlier peoples did not always observe the same divisions of reality that modern people tend to. A small carved wooden statue representing the Little Old Man God by Cadaveo South American Indians, for example, could be used in play by children.[5] A kite or mask, or a hopscotch or tag game used on one occasion for sacred purposes could be used by children on another occasion in their play. But this usage, though it occurred, does not seem to have been widespread and, in any case, does not constitute the invention of toys for the solitary play of children. The general character of child society for millions of years has been that each child was his sister's or brother's keeper, and that the group of children, as soon as the children ceased to be babies, and often even then, constituted a small work and play group. Sometimes it was, from the earliest years, occupied in tasks useful to its society: baby-care, cooking, gathering or chores; and sometimes the group was relatively autonomous and involved extensively in its own play society. The former, however, tended to be more true for girls, and the latter, more true for boys—especially in hunting and gathering societies.[6] These child societies, which were an important force in child socialization throughout history, were, by and large, highly conformist and limited in their impact and in the education they could offer. They were not the kind of societies that could, in general, stimulate individuality of thought, difference in personality or independent creativity. By contrast, a predominant correlate of child genius in our own era is a solitary childhood.

Isolation of the Infant

This way of arguing about toys, that they symbolize solitariness, will all become more cogent if it can be shown to be a part of other solitarizing pressures on young children. For, in general, anything that is important to a culture is overdetermined. That is, it is taught in many different ways and with much redundancy to make sure that the targets of the teaching get the message. In sex-role training, for example, if we want boys and girls to be different, as we have traditionally, we don't just tell them once. We tell them in multiple ways. The sexes are shown differently in books, on radio and on television. They are spoken to differently by mothers and fathers. Teachers treat the sexes differently. Peer groups treat each other differently. In hundreds of ways, some obvious, some not so obvious, the message is given to the child that as goes the biology, so should the behavior go, as selected by that particular culture. As many modern parents have found, it is very difficult to change these prescriptions; they are so widespread and so recurrent in every part of society.

Thus, if toys are examples of isolability as well as vehicles for its practice, we should be able to find that the culture emphasizes isolation and individuation in many other ways as well. It is indeed the contention of this chapter that the modern physical approach to the baby is to isolate it as much as possible from the ongoing events of family life, and yet contradictorily stimulate it as much as possible in order to increase its intellectual responsiveness. In this way, the general desire for solitariness, is united with the desire for achievement, which is thought to require continual and intensive intellectual stimulation. The first requires the baby be left alone often; the second requires the baby to be subjected to a great variety of stimulation. The compromise is to have, as much as possible, the stimulation carried out by physical devices that do not require the participation of another person. It is, of course, true that every modern manual advocates that the parents themselves should stimulate and play with the child. Yet no one advocates the kind of closeness we are familiar with in history among those tribes where the mother carries the baby constantly on her back while she works in the fields until such time as she hands the task over to the baby's older female sibling. Modern mothers would shudder at the physical onerousness of such a burden. One senses, therefore, that the modern emphasis on interaction has a much more specific focus. It is meant primarily to increase intelligence.

After all, ours is the civilization that over the past three centuries has confined its children, in a massive way, to orphanages and institutions and day-care centers, and only recently has discovered that the results of such confinement may be death, debilitation, or degeneration of developmental capacity. While other societies have had their infanticide and their infant severity, the anthropological record shows that modern society is one of the least indulgent of all. There is, in fact, a journal, *The Journal of Psychohistory*, devoted very much to the exposure of how disastrously we have treated children over the past several hundred years. Its editor, Lloyd de Mause, has become notable for his claims that

> most children before the modern era were battered children; it used to be common for nurses, servants and even parents to sexually abuse little children; infants were frightened into submission by adults dressing up huge (monster) figures, which were made to roar and pretend to swallow the children. Most infants used to be plunged daily into freezing water to "harden" them; Lenin's mother, as a child, went to bed nightly wrapped in cold wet towels. The killing of newborn infants was very widespread right into the nineteenth century. Schools used to take their pupils to witness hangings, and children were then whipped to make them remember what they saw better. There used to be special villages of "killing nurses" who were paid by parents to starve and poison unwanted babies.[7]

According to de Mause this is our cultural inheritance of child care, and it is against this historical backdrop that we should consider the modern baby ecology, which spends so much time separating the infant from others while, contradictorily, advocating specific stimulating and loving times for baby and mother.

Perhaps it is no accident that the major modern topic in the scientific study of infant social development has been *attachment*. The issue is how babies become attached to mothers; how, as a result of that attachment, they first begin to show some fear of strangers; and then later how they show a fear that the mother will leave them. It is usually claimed that they begin to show a clear preference for the main caretaker over others by about five months, that at about nine months they show some stranger anxiety and at about thirteen months, if their mother leaves them, they show some separation anxiety.

Putting aside the "scientific" merits of these studies, one must remark that after the centuries of neglect revealed by de

Mause, it must seem paradoxical that the major topic is now attachment. It is even more odd that when the British psychologist, John Bowlby, first drew attention to the topic, he suggested that in humans as in animals the attachment of infant to caretaker would be a fairly automatic and instinctive process.[8] After so many legions of babies in industrial society from 1750 did not get attached to caretakers and so many legions of caretakers were so insufficiently attached to their children that they put them away, it was a hard claim to make. We remember that Rousseau, the first "child psychologist," was sufficiently ambivalent about his attachment to children that he had his own put into institutions. He wrote:

> Five children were born of our liaison and all were placed in a Foundling Hospital, and with so little thought of the possibility of their identification that I did not even keep a record of their dates of birth (or their gender). For several years now, the self-reproach which my neglectful behavior has aroused in me has disturbed my peace of mind and I am about to die [a frequent condition in Rousseau's life] without being able to remedy it, much to the mother's and my own regret . . .
>
> I knew that there never was a man who loved more to watch little children joking and playing together than I, and often I stopped in the street and on walks to watch their cuteness and their little games with an interest I never saw shared by anyone.
>
> It would certainly be the most amazing thing in the world for Heloise and Émile to be the work of a man who did not like children.
>
> I would be more at ease before a monarch of Asia than before a child [with] whom I must make babble.[9]

This ambivalence about loving and hating children may well be the birthright of modern child psychology and modern parents.

While very few psychologists have subsequently considered "attachment" to be an instinctive matter, as did Bowlby, it has nevertheless remained the primary topic in the science of infant social development. Again, this is enlightening, because the thrust of modern society has been towards "detachment" and "alienation" rather than toward attachment and closeness. The growth of the city-state from some 5,000 years ago has led to a cumulative detachment of its members from their "roots" in village, religion, ethnicity, and, finally, the family. Earlier we interpreted Christmas gifts as a gesture of rapprochment in this developing estrangement of modern family members from each other.

It is against this historical backdrop then that we wish to consider those various modern apparatuses in the ecology of infancy which serve to both isolate the modern baby (the bedroom, crib, playpen, infant seat, walker, wind-up swing and jump seat) and to increase its stimulation from physical objects (wallpaper, pictures, plants and toys). We can get a better sense of how recent all these objects are in a child's life, if we realize that parents having objects in their lives is also fairly recent. From the time of Egypt until about 1500, it was not typical for even the homes of the wealthy to be furnished. People sat and slept on sacks of grain or mounds of straw. The wealthy had little besides a trestle table. In Moslem culture having a couch or divan or ottoman, indeed, was the symbol of the ruler and his court. When asked what they most valued in their home, not surprisingly modern parents most frequently indicate the furniture, and they often suggest that these are symbols of their own personal accomplishment.

It is not, however, until this century that children begin to inherit this state of affairs for themselves, and to have privacy from the moment of birth. Furthermore, infants in their own bedrooms are largely a twentieth-century emergent, a final stage in the evolution of privacy since medieval days when everyone slept in the same room, or those upper-status days where the children slept with the servants. It is held by some that it was in the last half of the eighteenth-century in England that children first came to be regarded as consumers and vehicles for the ambition of middle-class parents. This was the time when books were first written specifically for children in large print and with simpler writing. It was the time also when toys became industrialized, when toy automata shows traveled around like circuses and when toy shops were established in major cities. By 1800 some children were being dressed in specifically children's clothes. And most of the children of these middle-class parents were being sent to elementary schools, the major function of which was to prepare them for the new commercial (boys) and social (girls) opportunities of the

Industrial Revolution. Even the parents of some of the children of the working classes appear to have sought access to reading for their children and in some cases access to schools.[10]

The modern child's bedroom is typically described as both a place of privacy and a place of stimulation. It is thought desirable by some experts that the rooms be light and have fanciful wallpaper.[11] One study has shown that parents tend to put animals on the walls of boys' bedrooms and floral decorations on those of girls. A dimmer switch, meant to allow modification of light at bedtime, or a low-level night-light saves the room from complete darkness. Based on the view that babies enjoy novelty and like to explore their worlds visually, experts suggest that the crib be arranged so that the child can look out the window, see colored glasses or mobiles turning in the slight breeze, perhaps see a bird feeder outside, behind the plants growing on the window sill. Small lamps hanging upside down may cast light spots on the ceiling. Wind chimes hanging near the air-conditioning can make interesting sounds, and a radio going quietly in the background adds to the room's soothingness. Pictures hang on the walls, as in an art museum, although the subject matter is animals, people or simple scenes. The furniture is basic, rugged and safe, in preparation for the workout that comes when the baby begins to crawl and walk and fall over endlessly.

Within the room there is the crib, which is a playground within the bedroom/playground, comfortable enough to sleep on and big enough to play in for the first years of life. The baby will be confined here for long periods of time. In one study of a baby's time usage (the only one, to date) a 10-week-old infant spent 27 percent of his time awake and alone in the crib.[12] The level of the mattress will gradually be lowered until the baby is about 25 percent taller than the bar at the edge and it will be time for a new bed. The crib will have its own decorations and stimulational agenda. It may have painted figures on it; a mobile might hang over the top and be moved about in the breeze or perhaps agitated in response to the baby's movements. Another possible device is the cradle or crib gym, which has things hanging down that can be grasped and pulled or hit and is supposed to encourage hand-eye coordination. Again, there can be a hanging noisemaker—to be kicked by the baby's feet—which might chime, or ring on impact. There are also on the market many activity center pull-string toys that attach to the sides of the crib and, when pushed or pulled or kicked, give out noises. One psychologist, particularly interested in children learning about causality or how things happen, developed a pillow upon which the child's head pressure caused air exchanged through a tube to cause changes to occur in the mobile hanging above him. Rumor says the psychologist gave it up, because it was making the infants pay too much attention to twitching their head sideways. He had before him the specter of adults going round twitching their heads sideways every time they magically wanted to make something happen, although that seems an unlikely consequence unless one imagines that the infant could not continue to unlearn these earlier activities.

While an industry has grown up around the development of the infant's bedroom and crib, it is important to remember that this probably has more to do with the culture's statement about itself than about its knowledge about the effects on the baby. It is somewhat probable, on a variety of grounds, that a baby in a more stimulating environment will be a livelier person than otherwise, but that is by no means certain. It is safer to interpret the infant bedroom and crib as itself a story about what modern and affluent people like to believe about themselves, as well as about their children. They like to decorate and furnish their own homes and, in these, to reflect those styles from the history of architecture or painting for which they have particular fondness or which they feel are fashionable. This way they satisfy their interests and prove their worth to themselves and their friends. Similarly, infant bedrooms may demonstrate a parental concern for children and a belief in their early educability. They are the latest phase of that great parental ambition for the achievement of their young that first became noticeable about 200 years ago.

Judging by most bedrooms, one perceives that the spirit is predominantly romantic. Modern parents tend to choose for children that which is bright, colorful, light and fanciful, rather than that which is dark, expressionistic, surrealistic, geometrical or passionate in any sense of the word. Children's bedrooms, like children's literature, tend to be bowdlerized.

There is to be no sense of the earthy or the dangerous here. There may be the comic, but not the tragic. There is the detached and the cognitive, but not any sense of those sources of emotion that we associate with human passion. Urban civilization, which has wiped out most of the pacific tribes of the earth and scarcely had a year of peace in 2,000 years, prefers to have the baby beginning with a message of peace, quiet and latent stimulation;[13] although as far as the infants themselves are concerned, it probably doesn't matter which, if any, of these phenomena star on the nursery walls or in its pictures—not for some time, at least. Perhaps, in due course, the persuasion latent in these bright rooms will take its place alongside those other persuasions in the modern home that lead the child into the paths of conventional behavior. Again, we have the paradox that this frame of conventional "niceness" is taking place in the one spot where, over the years, the child can harbor whatever private wishes it chooses, whatever fancies, whatever rebellions, whatever earthy concerns.

Out of this solitary haven will emerge either the sane or the monstrous in the child's future behavior, and on the walls the conventional animals or flowers and the moving mobiles are the parents' first vote for tranquillity.

The infant seat, which props up at about a 60-degree angle, allows the baby to sit, strapped in, while perched on the table, while the adult moves about in the kitchen, or wherever. The baby can watch meal preparation, listen to table conversation, or look out the window at the rain and snow, even while placed at floor level. Although the baby is not swaddled and hung on the wall like a Hopi Indian baby, the effect is much the same, as far as containment is concerned, although not the same insofar as the mother shifts it around for changes of scene and stimulation. There can be an experience here of considerable mobility, as when infant seats become car seats. The modern infant, although not in much physical touch with the world, gets to see a great deal of it and moves around in it an amazing amount. There is much visual access, though there is minor physical access to the world. Perhaps, in its way, it is not unlike how watching television will be later, even perhaps not unlike the confinement or scope of being in a space suit or a space vehicle. This visual experience may not be unconnected with the report that, in early childhood, modern children spend more than half their time simply watching what is going on.[14]

The hanging jump seat, which is made of ropes suspended from the doorway and which allows the baby's feet to hang beneath, permits the parent to give the baby an occasional swing as s/he goes by, and the baby to move its legs and once again to keep an eye on the kitchen (where it usually is). A little later (when the child is about four to six months) there are stationary jump seats, which stay in one place but also hold the baby up in a seat, so it can bounce up and down as it pushes its feet on the ground or on a pile of catalogs the parent has placed underneath the seat. The walker is similar, but has the additional advantage of allowing the child to propel it around the floor, since it is on wheels. Sometimes the baby ends up stuck in some corner from which it must be extricated. In a sense the walker is a big step ahead of the others, because the main grasp on the world is no longer just through the eyes. Now there is movement, and the baby is the driver of the vehicle, even though still isolated within it. All the seats have the "isolation" principle in common.

Finally there is the playpen, which is the movable crib to be slept in and played in, and put in the backyard or the living room. It is decorated and filled with toys, and the baby may learn to walk by going around the sides of this particular cage.

Experts recommend that parents leave the child in its playpen in another room, not the one in which they are working, because if the baby can see the parents, it will want to play with them, not alone. Left in another room, however, it is said that the baby will play happily by itself for a long period of time. Still, parents are advised not to leave the child alone too long or else it may become more like a prison than a "play" pen.

We justify all the "isolating" devices by pointing out the relative danger of the modern home—with its electrical light sockets, dog dishes, cat litter, lamp cords, low coffee tables, small objects on the floor (pins, pennies, buttons, paper clips, screws, matches), television-set knobs, ashtrays, cigarette lighters, tablecloths, radiators, wastebaskets (containing razor blades and spoiled food), plastic bags, stairs, plants, and bottom cupboards with soaps, cleaners or poisons. This array makes it feasible to argue that we do the "isolating" for the baby's own safety, not because it is an endemic characteristic of modern society; that isolating the baby shows only our common sense, not our common character.

In justifying baby's "imprisoned" exposures to different visual worlds, modern documents rely most often on a common principle of modern child psychology, which is that babies enjoy novelty and like to explore their worlds visually. Many years of experiments have shown that when other conditions are held constant and the baby is in an alert state, it will show more attention to novel stimuli than to familiar stimuli (the stimuli being, e.g., colors, lines, patterns.)[15]

As a result, the infant's "hunger for novelty" has become a byword among child psychologists in their discussion of babies. What experiments cannot show, however, is how this hunger for novelty is muted or inflected by the myriad of other things that go on in an actual day, such as feeding, sleeping, noises offstage, interactions with people and gas pains. How great is this hunger for novelty in everyday circumstances? How much novelty does one need? Given that the toy industry has grasped hold of this principle and that "sensory stimulation" toys have become a part of their advertising way of life, it would be useful to know how much of it we actually need. Although the industry has found experiments in general supportive of its own efforts, a few psychologists who have written directly about toys for infants have actually been quite skeptical of the value of novelty, arguing either that infants don't really need the toys because they are imaginative enough anyway (with which I don't agree) or that too much money is spent on toys that don't really match the children's levels of development, and that homes are full of toys that are simply ignored by the children (which may well be true).

Looking at the matter in an anthropological way, not in a psychological way, shows that in most affluent homes there are many devices to isolate the child physically from other people and many devices to stimulate the child's mind. The infant is physically isolated but intellectually stimulated; the first is a matter of cribs and playpens, and the second, of toys. This is the cultural belief. We find, therefore, that the isolating of the child by physical apparatuses is consistent with the use of toys to isolate the learning processes. There is support here for the general theme of this book: that an essential function of modern child-rearing is to turn the child into a person capable of functioning in isolation by itself.

The Use of Toys for Isolation

Although there are not many studies which tell us just how children spend their time after infancy, there is at least one which, focusing on children in small nuclear families, found that in the second year of life the children in this sample spent as much as 80% of their time by themselves. The other 20% was involved in getting help and services from their mother. The 80% involved exploring, mastery, doing nothing much, eating, passing time, preparing for activity, going to get things, easing discomforts and restoring order. From this we may assume that if the child's activities involved toys, this was mainly solitary activity also.[16]

There are, of course, some toys which do require the cooperation of others, but we argue here that that is not the main purpose of toys. Toys have always been primarily the models of that solitariness on which modern civilization relies. It needs people who can reliably go about relatively solitary tasks and pursue them to some successful end. Modern society is a letter typed, a book read, an experiment completed, a state auto inspection finished, a computer analysis run. It is also a toy played with day after day until the child is tired of it.

Consider the list (see Table 3.1) of standard children's toys which I have arranged in their order of presumed usage from infancy through childhood, and divided into groups according to their degree of solitariness, required sociability, and/or mixed use. It is immediately obvious that most of the toys fall on the left-hand or solitary side of the scale and the games, on the right side. This seems self-evident, even though it is always

Table 3.1. TOYS: SOLITARINESS vs. SOCIABILITY

	Largely solitary use	*Mixed use*	*Largely social use*
0–3 years	rattle, mobile, beads, jump seat, cradle gym, pots, pans, squeak toys, playpen, push-pull toys, stacking toys, nesting toys, tricycle, straddle toys, wagon, hobby horse, sandbox toys, blocks, stuffed animals, doll furniture, puzzles, construction toys, clay, crayons, tea sets	balls, dress-up clothes, musical toys, finger paints, clay, Play-doh	peek-a-boo toys, parents' body parts, pets, books, pictures, wading pool, hide and seek objects, dress-up clothes
3–6 years	glamour doll play, toy phone, toy clock, toy soldiers, toy cars, boats, trucks, toy settings (farm, village, fire station) stereos, radios, printing sets, coloring books, storybooks	stores, playhouses, wagons, backyard swings, gyms	puppets & theater, race-car layouts, phonographs, sleds, wagons
6–9 years	toy typewriter, printing sets, construction sets, science & craft kits, handicrafts kits, video games, puzzles	fashion & career dolls, racing cars, electric trains, toy guns	board games, sports games, marbles, tops, kites
9–12 years	model kits, crafts, science kits, video games, tool benches, drawing sets, compasses, magnifying glasses	magic sets, bicycles, stilts, pogo sticks, roller skates	checkers, chess, table tennis, sports equipment

dangerous to pretend we know what a child will do with a toy just from its characteristics alone; children have a way of doing things with toys over and beyond the apparent character of the toy. Still, the table makes the fairly obvious point that toys are largely meant to be something that you can play with by yourself, while game objects (e.g., jump ropes, checkers) as well as sports equipment are, by and large, material things you use with others. The solitary objects are more likely to be used in the more impressionable preschool period, and the games more likely to be used during childhood proper, five to twelve years.

Children who have siblings or peers in the neighborhood will, of course, be more likely to convert toy play into some form

Table 3.2. PERCENTAGE OF DOMINANT USAGE OF TOYS BY TWO- TO SIX-YEAR-OLDS[1]

Isolated Usage	*Parallel Usage*	*Sharing or Co-op Usage*
Puzzles (84%)	Climbing Apparatus (43%)	Books (76%)
Shape Templates (100%)	Musical Instruments (63%)	Balls (96%)
Parquestry (79%)	Play in Loft (69%)	Puppet Stage (64%)
Peg Board & Pegs (60%)	Erasable Tablets (50%)	Dress-Up Clothes (100%)
Toy Animals (75%)	Toy Trucks & Cars (41%)	Wagon (81%)
Paper & Pencil (64%)	Crayons (83%)	Giant Pillow (67%)
Toy Sink (100%)	Collection of Bottles (100%)	Clay & Play-doh (70%)
Car Track (55%)	Toy Phones (66%)	Blocks (55%)
Tinkertoy (50%)	Paint & Easel (99%)	Toy Housekeeping Materials (61%)
Pull Toys (44%)	Sand & Water Table (69%)	Burger King Game (50%)
Lego Toys (44%)		Record Players (81%)
Paper Cut-Outs (50%)		
Helped by Adult		
Toy Sewing Machine (100%)		

[1] Adapted from Hendricksen, et al., 1981

of social play. When they go to Nursery School, for example, where there is traditionally such a great emphasis on learning to co-operate and to share, we would expect that preschool children would usually play with their toys with others. But there are experiments which show that when toys are present young children are less likely to play with others, and more likely to focus on the toys.[17] When they are left with other children without toys, they are more likely to play with the other children. Toys decrease the sociability of play. We hasten to add, however, that new toys also, in time, make a contribution to new forms of social play. This result is not unlike earlier studies of playgrounds which also showed that if children had playground apparatus they played in a more solitary way and with less aggression; but if they had no playground apparatus they played together more and with more aggression.[18]

The following table is the result of a careful study in which two- to six-year-old children were observed at four day-care centers and nursery schools in Nashville, Tennessee. We see that even in these very social situations a great deal of time is spent in solitary play with toys.[19] (See Table 3.2.)

It is possible to manipulate the amount of play which is solitary or social by the toys that are chosen, and in yet another study the authors found that when they used "isolate" toys with the children, the children were sociable only 16% of the time, but when they used "social" toys with the children social play occurred 78% of the time.[20] The toys were as follows:

Isolate Toys	*Social Toys*
Gyroscope (*Steven*)	Don't Cook Your Goose (*Schaper*)
Crayons (*Binney & Smith*)	Pick up Sticks (*Steven*)
Tinker Toys (*Toy Tinkers*)	Checkers (*Steven*)
Jig Saw Puzzle (*Milton Bradley*)	Playing Cards (*Bicycle*)
Farmer Says, Talking Book (*Mattel*)	Don't Break the Ice (*Schaper*)
Play Doh (*Kenner Products*)	Don't Spill the Beans (*Schaper*)

Because the so-called "isolate" toys are the traditional toys in this study, we are given further confirmation of our thesis that toys, by and large, imply solitary play.

There is throughout the educational and therapeutic communities a rather perennial need to "socialize" children and to expect that those who do co-operate with others are in better developmental shape. This has led to the unnecessary contrasting of solitary and social play, whereas, in fact, the able child is capable of both. It is true that disturbed or maladjusted children often have enormous difficulties in social play, but their problems should hardly be used as a judgment on the functions of play among normal children. Nor should they be used to obscure the historical drift towards isolation in the toy play of children, which is the theme of this chapter. So though we began with the paradox that parents use toys for the purpose of bonding, but also contradictorily for the purpose of solitarizing their children, now we find contrarily that in the school, the teachers and therapists are to some unknown amount seeking to resolve this paradox by their emphasis on the co-operative purposes of toy play. When the parents say implicitly to their children "that we give you these toys in order to bond you to us, now go and play with them by yourselves," they are conveying to their children an important message about civilization which is at the same time tampered with by therapists and educators in whose subjects the message has not been mollified by much ability to co-operate. So, for the latter, toys are often exploited as objects to increase co-operation, rather than to increase solitariness.

CHAPTER 4

The Toy as Consolation

What we are learning from these chapters is how labile is the toy to bipolar usages (gift vs. obligation; bond vs. solitariness; isolation vs. co-operation). An emphasis in one direction seems to create its own antithesis in the other. In this chapter we take up yet another such opposition, the way in which children themselves have taken their solitarizing toys and converted them to the opposite purpose. For solitariness may also be loneliness, and whatever its assets might be in making children develop in a highly individualized achieving way, its defects are the sadness of not getting to play with others.

Soft Toys

It is in this highly modern predicament that the theory of the soft toy has developed. But before we get into that, we need to reiterate that throughout the millions of years of human history most infant humans grew up without a soft toy or plaything of any kind. It is apparently perfectly possible to be a human being without the aid of a soft toy. How they are represented and how advocated by toy manufacturers, however, is indicated in the following publicity release.[1]

> DREAMY STUFFED TOY LAND. Asleep or awake his is a world of make-believe. And what more perfect companions for a dream journey than the placid and friendly animals of stuffed toy land. The companionship of these comforting characters provides just the right buffer. They lend cheer on a cheerless day and warmth on a cold night. They listen attentively for hours, when no one else seems to want to. They may seem a trifle preoccupied, but they're never impatient, irritable or bossy. And they're always there to help and counsel—an oasis of tranquility that cushions the shocks and brightens the depressions of some of life's earliest experiences.
>
> They're all part of a nationwide menagerie that is growing at the rate of nearly 28 million a year.
>
> Tucked away in all of us, according to psychologists, is the need for a *source of comfort*—someone or something to turn to. This helps explain the fact that women—and a lot of normal males—never seem to outgrow their affection for stuffed toys—especially those they've kept since childhood. (One leading manufacturer reports that his college-age son won't throw away his stuffed beagle. He says it's the only toy he really remembers from his childhood.) In fact, a great number of people cling to their stuffed animals all their lives. According to English author, John Bull, one insurance broker sued his ex-wife for the return of a teddy bear; an actress went to court to recover a painting of one; and a billionaire's ex-wife takes a teddy bear practically everywhere. Almost everyone who ever owned a stuffed toy is influenced by it—consciously or unconsciously it seems—forever after.

And from another release:

> Teenagers spend hard-earned allowances and savings collecting them [soft toys] for decorating their rooms.
>
> Guys at carnivals spend $5 trying to knock down wooden milk bottles with baseballs in order to win one worth $1.98 and impress their girl friends with their athletic prowess.
>
> Nurses on pediatric wards at hospitals count on them to calm the fears of children uprooted from home by sickness or injury.
>
> In fact, seven out of every ten persons have at one time or another slept with, played with, or collected stuffed animals, according to a leading supplier of toy plush fabric to the industry.

Thus, one kind of toy, at least, is advocated as a humanoid antidote for loneliness. All of this is, of course, advertising; except that in one school of psychology there has developed a theory that blankets or soft toys are important for a child's emotional and mental development as "transitional objects." The idea is that the child begins with a blanket and then may move to a soft toy. Thus, child's play is an *in-between zone* between his/her relationship with mother, and relationships with the world of things and other people. In this in-between or interstitial zone the toy becomes an agent that helps the child relate to things other than mother, because it reminds him of mother, her smell, her warmth. The play object is completely in the child's power; it is cuddled, loved and mutilated; yet it gives warmth. It has its own texture and vitality and, as the years go by, it can gradually fade in interest.[2]

Although it does not always do that, as one observes in *Brideshead Revisited*, the British television series. Here, a dissipated central character, Sebastian, had his own teddy bear, whom he calls Aloysius and whom he hauls around Oxford, even forcing his fellow students to enter into dialogues with it. Thus:

> *Charles*: Do you know *X* spent the whole of yesterday evening trying to turn me against you and almost succeeded?
>
> *Sebastian*: Did he? How silly! Aloysius wouldn't have approved of that at all, would you, you pompous old bear!

Other equally famous examples of the transitional object are the blanket of the cartoon character Linus, in Charles Schultz's "Peanuts"; and, of course, the Pooh Bear of A. A. Milne's chief character, Christopher Robin, who speaks thus in *Now We Are Six* (New York: Dutton, 1961, p. 37):

So wherever I am, there's always Pooh,
There's always Pooh and Me.
"What would I do?" I said to Pooh,
"If it wasn't for you," and Pooh said: "True,
It isn't much fun for One, but Two
Can stick together," says Pooh, says he.
"That's how it is," says Pooh.

The upper-class British are well noted for sending their very young children off to boarding school at the early age of seven years, undoubtedly making their own massive contribution to loneliness by so doing. I know of a young woman brought up as an only child by her colonial, upper-status, tea-plantation parents in Ceylon. She was married off in what we would these days regard as a largely "arranged" marriage, despite her wishes, to the owner of another tea estate, who, as it happened, had no desire to consummate the marriage. My memory of her is, at the age of 35 years, sitting on the front porch every afternoon looking out across the beautiful estate, holding in her hand the small and tattered remnant of a blanket, which, from time to time, she brushed under her nose as she looked sadly into the distance.

While this may be an extreme case, in present terms one can see the emergence of this kind of theorizing about blankets and teddy bears as a general response to the loneliness and search for substitutes brought about by the increasing solitariness of children during the past several hundred years. One must see these blankets and soft-toy theories of child development as themselves responses to historical changes in culture, quite apart from whether or not they have some psychological validity in their own right. The soft toy, then, is the outstanding symbol of the many other modern toys that also function to compensate the child for its loss of siblings, of parents, and of friends. And although we cannot expect the ordinary toy to be as compensatory as the soft toy, it is interesting to speculate on which can hold the child in happy solitude for the longest period and contribute to a decrease in loneliness.

Which toys are the best substitute friends? Our hypothesis is that the toys of loneliness are those with the most humanoid characteristics: soft toys, records with human voices telling stories or singing, or toys, such as video games, which provide some reaction to the player.

The emergence of the Cabbage Patch doll during the Christmas season of 1983 validates the above claims for the essential relationship of the modern toy to loneliness and the toy's role as substitute companion. Cabbage Patch dolls are sold for adoption to the parents and the child. The owners also get a birth certificate and a birthday card on each subsequent birthday. The doll's emergence on the market triggered a frenzied rush of buying. Whether it was their special neonatal-like—almost ugly—features which make children feel superior, their uniqueness (each doll being trivially different); their origin as a spin-off of a scarce, hand-made, and prestigious doll costing hundreds of dollars; the shortness of supply; or the association with adoption and birth certificates, cannot be answered. But—given that living in a family is a lonelier undertaking than ever before; that parents as well as children would like to have more children in the family, but jobs and the economic and political state of the world prevent it—this new substitute does speak directly to a family's needs for more loving and more intimacy, even if only in a simulated fashion.

One might wonder whether blankets or soft toys do bring some comfort to their lonely owners. There *is* some supportive research, perhaps the most interesting being an experimental study, which showed that two-year-old children who were blanket-attached cried less when their mothers left them in a strange room than did other children who did not have any attachment to a blanket, even though they had one with them at the time. The blanket-attached children also cried less than children who had a favorite toy with them.[3] Whether it is better to get used to not crying because you have your Aloysius, your Pooh or your Linus Blanket with you is another question: In *Brideshead Revisited*, for example, Sebastian, the twenty-year-old with the soft toy, was also a disturbed individual. Although it might be a comfort to take your blanket with you, and it might decrease your loneliness, somewhere down the line you may want to give up your crutch.

As the examples below show, one seldom *has* to give up the crutch. Of all the information I have received about toys, that about soft toys is perhaps the most singular, the most obvious. Soft toys were constant companions, much loved and not easily given up, often even in later years.

Some report keeping the stuffed animals from each stage of their life, as current collections which serve as reminders of their own emotional biography. In childhood it might be a teddy bear; but in adolescence would be "humungous" stuffed animals that were won for them by boy friends, and later "political" animals given by adult friends. Others report that as children they would throw their teddy bears into a dark room before entering in order to guarantee their own safety. But mostly these soft creatures were not treated with such callousness, rather with tender affection and a living memory of all their felt and color details as they were cuddled nightly in bed. As one says: "He is still alive and well, though living on the top shelf in my cupboard." Taking an animal or a toy to bed with you seems to be a criterion for such a special level of affection. Increasingly over the past several decades these toys have become a part of adult life as the following informants indicate:

> Children may want nothing more than a Cabbage Patch doll for Christmas. But adults too, seem to be crazy about small, furry friends. In the Wall Street area of Manhattan, at every holiday, vendors set up tables in the street to sell mice with hearts painted on them or bears wearing shamrocks. Three-foot high Smurf dolls went like hotcakes last spring alongside Chase Manhattan Plaza. Candy stores are filled with stuffed parrots in every color, monkeys hugging each other and mother cats with their kittens. These stuffed toys are not for the children of the office workers, but for the workers themselves. How many desks in the middle of a large open secretarial pool have a little animal sitting in the corner? How many shelves of corporate reports have a comic little figure sitting between the volumes? (*female*)

> Although I did not really have very many important stuffed animals when I was little, I find that I do have several stuffed toys around my apartment now. They have arrived, this cast of goofy characters, in varying stages of the unfolding of my inner life. It is almost as if I have found a comfortable, safe way to physicalize the inner, symbolic ritual or 'regressing' to an earlier, freer state of being. I now find myself with several furry little creatures and, in analyzing them, I find a significance in the order in which they appeared, and in whether or not I bought them myself or if they were gifts.
>
> The first, earliest creature to appear is not, in fact, a stuffed animal at all, but a rubber chicken, which I named Alvin. The process of naming these characters, by the way, is a whimsical and serious one, simultaneously. I wait until the toy seems to tell me what kind of name it wants, or feels like it should have. It's almost like a mini-ritual of naming that aspect of myself which the toy mirrors. I bought Alvin in a magic shop when I was a singer-songwriter playing clubs. I intended to leave Alvin lying on the top of the amplifier during the performance; when I introduced the other members of the band, I would also introduce him, too: so-and-so on guitar, and Alvin the Rubber Chicken on amplifier. Fortunately, I only did this a few times before I realized that the groans from the audience were not worth the joke. Other than this, Alvin had no real life of his own.
>
> A few years later I saw and bought a small, very cute Teddy Bear. I

> reluctantly named him Teddy—reluctantly, because I thought he should have an unusual name—but he seemed insistent on being called Teddy. I did not refer to him by that name for a long time, though, as I had had a young nephew named Teddy, who had died of leukemia at the age of five, and I still found the name hard to say when I bought the bear. I think his main function was to be there and be sweet, soft, and cuddly while being silent. He was also familiar ground; my only earlier stuffed animal had been a Teddy Bear, too. When I could finally say the bear's name without choking up, I knew I had made peace with my nephew's death. I no longer needed a "symbolic" Teddy to ease the loss of that dear little boy.

The account proceeds to name further soft toys that played an equally important part in this informant's discerning psychological autobiography including a big beaked bird to be called Rufus, a purple dragon to be called Derek, a duck called Timothy, another bird to be called Seymour, and lastly Gus the goose with a floppy hat. She continues:

> Finally, I think it is very significant that these characters only speak or show themselves with my closest and most trusted friends, which is a reflection of how relatively protective I still feel about going back in time emotionally to recapture some link with my inner creativity. Although it seems very logical and direct a progression as to the meaning each of these toys seems to have as a parallel to my emotional and psychological journey back into myself, I have only actually seen the pattern this clearly as I wrote it out. I should mention, in addition, that with each succeeding stuffed animal, my hesitancy and self-consciousness about giving them vivid names and characters and voices quickly dissipated. I now do not mind at all that these are real characters that I have created to "play" with as an access to myself and my inner world. They have a specific place in my very private circle, but, within a strictly defined context, they live openly and freely, seeming very much to have minds of their own. And, as Timothy would be the first to point out, he doesn't only fly upside down and ask for French bread and Brie—he also is sitting there on my shoulder (metaphorically, not literally) when I try to write. And that chosen path, writing, has been getting easier and freer ever since these silly creatures took up residence with me in my home.
>
> There is no competition between this family of toys and the several small wind-up ducks or the sponge duck that lives in my bathroom on top of the sink. They are merely decorative touches of whimsy (including the duck decal on my apartment door); but Timothy and his friends play an active role, symbolically, and literally, in my rediscovery of those parts of myself that I have missed for so long. That they are all male characters is obvious, since it is the animus side of my nature (the "male" side metaphysically) which needed to be brought out again to give voice and form to the inner "female" swirl of emotion and imagination. Thanks, guys! (*female*)

Pets

Although soft toys help to make our case for the loneliness of the modern child, there are, in addition, two other kinds of play phenomena in childhood that can be fitted into the same interpretation and are equally momentous in their impact upon those who have them. The first is pets and the second is imaginary companions.

In the modern home, a pet, particularly a dog or cat, is perhaps even more of a defense against loneliness than either the soft toy, blanket or imaginary companion. It is estimated that there are over 40 million household dogs and over 20 million cats in the United States. It is the country's most expensive hobby, reaching $4 billion to $6 billion annually. There is, in history, a record of dogs as pets at least as far back as 1,200 years ago. Dogs are nowadays so omnipresent and so important to us that one anthropologist John M. Roberts calls them "Little people in furry coats." When we come home, they are always crazy with joy to see us (or crazy with their own loneliness). They never make any unpleasant comments, and we can treat them either with great fondness or with complete indifference, according to our after-work mood. Nevertheless, they will continue to be just as fond of us and just as eager to enter into some activity with us. In the lonely modern home it is very hard to find a spouse or parent or child who will give such unalloyed responsive affection. Dr. Alan M. Beck, Director of the Center for the Interaction of Animals and Society (University of Pennsylvania), claims:

> Pets alleviate stress and loneliness and add good humor to our lives. It has been proven in laboratory settings that stroking an animal calms the nervous system and lowers the blood pressure of both the man and the beast. Recent studies have demonstrated that the survival rate of heart attack victims is higher among pet owners. People of all ages, especially the elderly, benefit immeasurably from the companionship of animals which give them a sense of belonging in an increasingly depersonalized society.[4]

Our own informants often speak of their pets as the central "human companions" in their own child lives. Most usually they are dogs, but sometimes they are lambs, parrots, gold fish, guinea pigs, parakeets, canaries, and along with the companionship there are the frequent mishaps which children incur through lack of feeding or wrong feeding or through loss of the pet. Here is one account quite typical of the significance of the animal in the life of the child.

> When I was four years old, before school was out for my brother and sister and before we left for the shore for the summer, my brother and I brought home a stray dog, a black mutt with some brown and some white fur on the neck, tail, paws and face. Actually, we made it follow us home from the day-care center where my brother picked me up after school. The three kids wanted to keep the dog, but our parents said, 'Absolutely NO!' I cried a lot, my brother and sister reasoned and promised care and feeding and we prevailed. Bingo remained part of our family for the next ten years until her death.
>
> Summers, she was a constant companion in the boat, at the bay beach and wherever I played on the shore. Bingo was, I think, one reason I was able to win so much early independence. She was probably perceived by my mother as a protector and perhaps as an early warning device of some sort, barking if I got into trouble or did anything out of the ordinary.
>
> The dog provided me with my first inklings of what it meant to be responsible; she gripped me with my earliest experiences of birth; and she represented by first attempt to deal with death. Because Bingo was more immediate to me than my grandparents, it was death in reference to her that first helped me to understand death and to feel deeply. The first time was when I was ten years old. We had, that year, moved permanently to our summer home. The island was virtually deserted during the winter months. While we had returned to Philadelphia to spend Thanksgiving with my grandmother, there was an especially violent Northeastern (storm) hitting the shore. The flooding of roads was so bad that the islands were cut off from the mainland for almost a week, so we were not able to get back.
>
> Bingo had given birth to a litter of puppies about four weeks before the holiday. Some lucky kids were slated to receive puppies for Christmas. We had left the dog on the back porch, and a lone neighbor was to feed her for the weekend. The floodwaters, though, rose and washed through the house, soaking the carpets, the furniture and the new and first TV set and swept away the puppies. Bingo spent the rest of the weekend retrieving her drowned babies one by one from wherever she found them on the island.
>
> My father and I were the first to arrive back at the island, making an attempt to get back, by parking offshore and crossing the bridge on foot. The image of Bingo sitting on the steps not allowing anyone to touch her pups until we arrived brings tears to my eyes as I write this. She wouldn't eat or let anyone near her until we returned and buried them.
>
> Instinct? Love? Loyalty? Devotion? Caring? I assigned my own anthropomorphic meaning to the incident, but I learned then about

the depth of my own love for my dog. It was good to have felt hard at age ten. I think the experience enabled me, forced me always to look deeply into how I felt and not fear to feel. (*female*).

Imaginary Companions

As well as with the soft toy, blanket or pet—the modern child can be helped toward managing the necessary solitariness and impersonality of the modern world by having an imaginary companion. Although these are not sold or made by the toy industry, they have been a feature of modern research on children's play. When they were first debated in the 1920s and 1930s, the prevailing public view was that they were perhaps a symptom of mental illness and schizophrenia, an illustration of the unhealthy withdrawal of the child. Contemporary research, however, showed no such disadvantages for those who claimed to have these companions. Further, as time goes by and more and more people have reported having them, if anything the research seems to indicate imaginative superiority to those who can respond to their predicament of loneliness with the invention of such imaginary companions. In one report, those who have them seem more often to be children without siblings or to have much younger siblings. They are more often first-born and more often capable of verbal relationships with adults. Although the evidence is not very substantial, it is credible that the imaginary companion, along with the soft toy and pet, is a response to the habitual solitariness of the modern child.[5]

Conclusion

The virtue of these various accounts of soft toys, pets and imaginary companions is that they breathe the life of both play and of humble, yet poignant, relationships back into our story of toys. It will be remembered that the intent of the toys, in this account, was to increase bonding within the family. But we have argued that it has also increased the solitariness of the child. Toys have increased the willingness of the child to play by itself, and have, as these examples so clearly show, increased the bonding with the toys (if not with the parents). "I give you this toy because I love you and I want you to be closer to me" says the parent in effect. "But now go and play with it by yourself." And the children go and play by themselves. Thus the toy is a further paradox because it stands both for being lonely and seeking consolation at the same time. But the major point of these past three chapters is that, although the "gift" is meant to bond the child to the parents, the child's reciprocal obligation is to become capable of solitary behavior. Solitariness is the child's gift to the parents.

PART
II
The Toy as Technology

CHAPTER 5

The Toy as Machine: Video Games

The history of civilization is a history of successive inventions changing the nature of the way in which people lived, behaved and thought about themselves. The history of evolution may be a similar story. It is a common view among evolutionists that the monkeys that stood upright and walked like men four million years ago, did not yet have human-size brains. But that in standing up they discovered the usefulness of sticks and rocks for attack and defense and for eating. In turn, the groups that made these discoveries were themselves affected by their skill with these objects and tools, so that those who used them successfully were more likely to survive than those who did not.[1] Brains most adapted to using such tools and weapons were the brains that survived, and through millions of years of such selection the human brain as a skilled tool user gradually developed into its modern form. Even if we are unsure of this evolutionary narrative, it is hard to deny that there have been many subsequent events that have given prime importance to the shaping impact of technology on human nature. Whether we choose to begin with the Ice Age forcing mankind into caves and into the systematic use of fire for cooking and warmth, or whether we prefer to think of our modern origins beginning with the discoveries of agriculture and husbandry, the wheel, the control of water power, the control of wind power, the cannon, galleons, clocks, spinning wheels, printing, microscopes, the wedding of science and technology, the Industrial Revolution, the space revolution and now the computer revolution—we are all in the habit of acknowledging that, as compared with the first 2½ million years of human life on earth (and the 5,000 million years of the earth's existence), modern man with all his inventions and comforts is a creature of the last 500 years. In that time human lives have been totally transformed by technologies.[2]

The Machine Toy Concept

In this section on the toy as perceived in technology we focus on the ambivalences to the toy that derive from this history.

The development of the modern concept of the toy seems to have occurred first between the years 1550 and 1750 when the new idea of the industrial machine began to change the nature of the world. To many scientists of the sixteenth and seventeenth centuries, the machine seemed to be a new marvel demonstrating the sanity of the universe. The existence of machines showed that, despite other appearances, the world must be governed by reason and not by chance. Man's discovery of machines implied that the whole Universe was itself a rational, self-running machine, and that that was the way God had planned it in his divine wisdom. After all, could God have done less with the Universe than had man in making machines that worked by themselves? As Galileo put it, "Nor is God any less excellently revealed in nature's actions than in the sacred statements of the Bible."

Little machines like clocks were miraculous demonstrations of God's will. They were not just toys; they were examples of the rationality of the Universe. The clock, by the way its cogs moved about each other, was an illustration of the movement of the various planets about the sun. The clock was indeed a Universe made small—made rational and controllable—by ourselves. In due course, clocks as miniatures gave to small things a central place in the character of civilization. The clock as the arbiter of fractional units of time also became central to religious and capitalistic notions of work and order.[3]

The modern toy may be seen in part as a symbolic legatee of this first optimistic scientific view of the planned universe. In its smallness the toy, along with other miniatures, represented a departure from the thousands of years in which the major "science" for the peoples of the world was the science of largeness, of the macrocosm, of astronomy. This had been the necessary science for the understanding of the role of the moon and the sun in seasonal change and agricultural planning. Just as the first machines were sometimes thought to mirror the movements of the universe, they were also a turning away from that universe to the smaller universes (microcosms) under more direct human control. Among other shifts this was a revolution *on behalf of the miniature*. It was a revolution fostered by the invention of the microscope (about 1590) and of the telescope (1600). These allowed the minutiae of outer or inner space to be brought more directly before human vision and be reproduced in the miniatures of globes, maps, models and toys, as well as in the tiny still-life paintings of the Flemish painters of the seventeenth century.[4] This turning to smallness was in its own way a parallel to the theory of Copernicus (1543) that the world was not really the center of the Universe after all. Instead it was much less important than that. It was just one planet going around the sun. When the earth is not the center of all things, it becomes possible to examine it for what it is.

Although this new view promised to deliver humankind from superstition, magic, the burning of witches, the making of potions, and sorcery, not everyone was equally excited. While some could see machines as a promise of reason in a dark and irrational world plagued by superstition, disease and war—others saw this view as an anti-religious one. While some saw God's plans in machines, others saw no such thing. They said, God was not exhibited by acts of nature; He was communed with only through the spirit. Thus two of the greatest thinkers of the 1600s were pitted against each other: René Descartes, on the one hand, glorifying machines, and Blaise Pascal, on the other, decrying them.[5] Descartes felt that everything was a machine, not only the Universe but also animals and plants and even our own bodies. His was the line of thinking that today emerges in medicine, when we have organ transplants, and kidney and heart machines, and when we have often come to think of the mind as a kind of computer, a vast machine confined into a small space with its own micro micro-chips and its infinity of wet software. This is also the view that is caricatured in the movies featuring Dr. Frankenstein, where the scientist cares more for his control over nature than he cares for the real lives of ordinary people. The machine comes to stand both for control over nature and for something inhuman and dangerous. The toy, similarly, is both a sign of power over things, as well as a sign of the loss of what is human, warm and loving. Pascal felt that Descartes exaggerated the power of science and of machines. He felt that the experience of God was a personal and intense feeling; that the important thing about human beings was not that they worked like machines, but that they had personal feelings. To understand human nature, we had to begin with *human* meanings, not machine meanings.[6]

In modern times this very same dispute still rages between those who consider that human values should be the center of science—the humanistic scientists—and those who feel that true science is the prediction of human behavior as the result of experiments and measurements—the behaviorists. The modern toy is born of this controversy over human nature, and if it no longer captures the movement of the heavens, it still captures the bitterness of controversy over whether we move like machines or by some more indefinable aspect of the human or divine spirit.

The role of the machine as toy steadily increased in the years that followed this seventeenth-century controversy. It is contended that Descartes himself built a mechanical figure of a young girl in order to illustrate his theory that even humans are highly developed machines.[7] Although there is evidence of moving machines as spectacles in fairs and circuses and for the entertainment of the elite throughout Western history, particularly in Germany from about 1400 on, the 1700s were the heyday of new and ingenious "automata." Among the inventions were: moving ducks that quacked, sheep that bleated, dogs that barked, figures that played musical instruments with varied repertoires, miniature birds that sang and popped in and out of snuff boxes, a doll that could write epistles of 50 letters, human figures that could execute drawings, and crib scenes replete with moving village craftsmen (hammering and sawing).

Apparently not everyone was equally ready for these demonstrations of universal sanity. Some toymakers were accused by the Spanish Inquisition of being sorcerers. And it has been argued that the manufacturing in eighteenth-century France of intricate machinery—early precursors of today's automation and computers—was focused almost entirely on toys for rich or royal patrons. It fed a conservative and aristrocratic society, rather than the Industrial Revolution, which was taking place concurrently in England.

The Anthropology of Games

Of all the toys that are machines and that work by themselves and can be enjoyed in solitude for endless periods of time, the apotheosis is undoubtedly today's video game. The "video game" is an automaton that might have made Descartes shout with delight. It is not only an automaton; it engages the player in a two-way conversation of movements and of intelligence. Indeed, if God is like this machine, God is a very logical person.

But the video game is a toy that is also a game, and, in order to understand it properly, it is necessary to say something about games in general. What follows derives from the theory John M. Roberts and I developed in order to explain our anthropological data on games.[8] We found that games were not universal in human history. There is on record some small collaborative tribal groups that did not have games. Games tended to rise when there was some basis for conflict, for example, between the different roles of men and women.

Among the people of the Tierra del Fuego in Argentina and Chile, there were tug-of war-contests between men and women. If the contest grew too unequal, the women were allowed to go and drag out a man or two from the other side and commandeer them for their own. It was agreed beforehand that the women should win. In some tribes it was agreed that no one should win. The joy was in the struggle, but there was no desire to have anything but equality in the outcome. Those were tribes that were so small, they could not afford to let anything interfere with their necessary cooperation. On the other hand, they had to deal with the tensions between men and women and between individuals that were likely to interfere with their group survival. The games gave expression to those tensions and, at the same time constrained them in what was essentially yet another cooperative venture. They permitted the expression of antagonism but within a social context that on behalf of the total community, constrained that antagonism. In more complex communities, where it was more permissible for individual differences to occur, games were typically competitive. Here the competitiveness of tribal members was harnessed into a game, which, although it allowed some to win and some to lose, nevertheless confined the conflict within agreed-upon limits. The underlying anger or arrogance was masked as a spear-throwing contest, or a running contest or a wrestling match, and was further confined by being held only on given ritual occasions in association with other celebrations of the community. In groups that depended for their survival on evoking the greatest competence from individual members (as spear-throwers, or runners, or strongmen), such games were a natural way to cultivate, express and harness these performances. Thus, games have to do with some of the major tasks of survival in the groups in which they are found.

More interesting problems arise with games of chance and of strategy. Games of chance first arose historically in association with tribes that used magical and divinatory procedures for finding out what the gods intended them to do. The games of chance were apparently models of this random decision-making, although it was not felt to be random by those who did it. They assumed that they were finding out what they should do. The games helped them to make decisions but with divine guidance. Today's gamblers might also attribute their own successes to "Lady Luck," but in both cases it is felt that some outside spiritual or superstitious agency plays a hand in the game. Here the game helps the players to *adapt* to their belief that the world is not really controlled by themselves but by forces outside of themselves—the Force, if you will. Once again, while adapting to the Force, the game also expresses the player's own belief that, in fact, there is something they can do to affect the Force, e.g., spitting on the dice, or carrying a rabbit's tail.

Games of strategy exist in cultures where there is a need for diplomacy, deception and strategy in decision-making. All modern city cultures have these kinds of games. Chess (Europe), Go (Asia) and Mancala (Africa) are all strategy games in which one social system contests with another social system and the one that wins has the better strategies. Here the games appear to have arisen to prepare the group members in these novel ways of thinking about human relationships. In more complex cultures there tends to be less trust in other people, and the members of such groups are trained in this distrust—among other agencies—by these board games. Gullibility is the norm among, for example, the Australian aborigines, where people live in small groups and are very dependent on each other. Without distrust, however, it is not easy to survive in modern business, modern politics, and modern marriage. Of course, trust is also required, and the games require the players also to trust each other, e.g., not to cheat, or not to get outraged by failure. Games of strategy balance these "trust" and "distrust" requirements in a way that is complex and adaptive to modern diplomatic requirements.

The purpose of this very brief anthropological review is to show that games can be seen as models of problems in adaptation. They exist to simulate some adaptive problem that the group is having. They exist to reduce that problem to a scale that is manageable. They reproduce the two sides of the problem (to capture or not to capture; to have luck or not to have luck; to deceive or to be deceived) and also the excitement that goes with the uncertainty of not knowing what the outcome will be. Yet, because they are only games, they reduce the insecurity that might go with that excitement if it was real life. Players are not hunting real tigers, or taking a chance with angry gods or trying to outwit diabolical adversaries. The dangers that go with these excitements in real life are largely curtailed and can therefore be studied within manageable levels of anxiety.

The Computer

The adaptive problem to which the video game is a response is the computer. The computer is, to this century, what printing was to the sixteenth century. The invention of printing gradually made information about biblical and other matters accessible to all people. It helped to change people's ways of thinking about religion and about science. It made information available to anyone who could read. From 1550 until today, the world has increasingly engaged in the reading enterprise, which has spread literacy and logic among humankind. But in the beginning there were multitudes who feared what this information might do to people when it could no longer be controlled by the authoritative few who were priests or scholars.[9]

Similarly today, the computer strikes fear into the hearts of many people. The computer is a response to the information explosion. With the total sum of human knowledge doubling every decade or less, it has increasingly become impossible in this century to keep up with massive new amounts of information on every subject, let alone to make decisions about that information. The computer helps by storing such information and making it instantly accessible; it helps with decision-making by discovering many of the implications of all this data that it has stored, when one kind of data is compared or correlated with another kind.

But it requires training to understand how to read a computer and even more to understand how to make it give the answers one wants. It seems to be a machine which in many respects is more intelligent than human beings. Famous scholars actually argue with each other over just how intelligent and "human" the computer really is. Some suggest that ultimately it will be able to deal with emotional problems or unforseeable problems. The first line up with Descartes and computer optimism; the other with Pascal and computer pessimism. What the public has come to realize is that the computer will be the new force of the twenty-first century, when it may control most of what we do, from simple train timetables to landing on the moon; from banking, accounting, and business, to the military. Perhaps even our private medical histories will be on computer, as well as complete resumés of our education and our careers. Nothing may escape the immediate availability through computer of our total recorded lives. Ours will be a world village of records succeeding those of rumor and simple observation.

The Computer then has become a Force in ourselves, not a physical force (to be countered by games of physical skill), not a random force (to be countered by games of chance), nor a deceptive force (to be countered by games of strategy), but an entirely logical and mnemonic force, to be countered by, of all things, video games.

The Video Game[10]

The adaptive problem in the video game is to "beat the machine." One does this by physical skill and coordination of hand and eye, by strategy and by good luck. All of the major competences of the prior three classes of games (physical skill, chance and strategy) must be used here separately or in combination to beat the machine. The primary thing about these games, as about all games, is that they involve a contest between players. But this time the other "player" is usually a computer, which controls the plays as well as the programs within the computer that must be played against. Sometimes these programs have random elements, sometimes logical elements and sometimes both. When they have random elements, it takes luck to succeed. But this machine is also a toy, because it is a play object and not a human being. Most of the time the battle will just be between you and the machine. No one else need know what is happening, and you are ultimately the one in control, deciding to turn it on or off, to begin at the simpler level or the more complex level, to make your own programs or to buy other programs you like better. All of these decisions about this artifice make it a toy. And yet it is the most complex toy ever built and is vastly more responsive than any other toy ever invented. Compare it, for example, with its contemporary, the doll Chatty Cathy, which has about a dozen different sentences with which to respond when you pull the string. Chatty Cathy does not take into account the variety of your responses; the computer does. Chatty has a dozen responses; the computer has millions.

As a game, the computer can do as much as most of the human players you are likely to know, though it has yet to beat the very best chess players. So we have a toy which is a game, and which is a model of the computer itself. What we fear about the computer (about the space age, flying machines, nuclear bombs, and the R_2D_2 and CP_3O we can come to some terms with in the video games, which reduce these worldly phenomena to our own scale and our own terms. It miniaturizes the heavens, global battles, star wars, tennis games, Pacman, Donkey Kong, Asteroids, Space Invaders, and the like. Those who have done research on the effects of stress on animals have found that it is not the amount of stress that counts, so much as the animal's ability to make some kind of relevant response. If the animal can be usefully responsive, it does not show the impact of the stress to the same degree. It is, rather, the inability to control events that makes one susceptible to stress. Video games are, among other things, a human response to the fear of the great machine. And it is the player's control over the machine that is most emphasized by those who play these games.[11]

In May of 1983 the first world conference on video games was held at Harvard University, Graduate School of Education.[12] Some preliminary and tentative social facts about these games came from that conference: (1) in this first generation of video games children seem to learn them much faster than adults (but whether those children's children will have as much success remains to be seen); (2) by and large, boys and men prefer them more than do girls and women, although this is not particularly exceptional, as that difference has always existed with most of the other kinds of games of physical skill, chance and strategy that have been mentioned (the exceptions being jumprope, jacks and hopscotch, bingo and Twenty Questions); (3) solitary children in families play with them more than those with siblings, but then so do their relatively solitary parents play with the games more; (4) children in video-game families watch less television; (5) in this first generation of games there is much home discussion and conversation about the games; (6) children can carry the games in their pockets, and there is some house-to-house swapping and group gatherings in those homes where new games have arrived.

Again, despite early hysteria about video-game play (arcades as dens of drug dealing; video-game addiction leading to gambling; theft paying for games; and games instigating aggression), none of these fears have been justified by the little research to date. Players tend to be above average in school grades, non-truant, have wider-than-average interests, spend at least half their arcade time socializing with the other players and spend, on the average, less than three dollars a week. As they develop in skill, they may play for long periods of time, even hours, for only 25 cents. It is the adults who learn more slowly and spend the larger amounts of money. Those who play, child or adult, appear to become less tense and to enjoy the experience as a recreative phenomena.

Undoubtedly, as the games change, the social patterns may also shift; there can be nothing very universal about them. Perhaps of more importance is the research showing that the more popular games have more explicit goals, keep the score for you, have various levels to play from simple to sophisticated, have sound-effects and music, quickly react to your moves, have some built in randomness, have evocative images and fantasy and give you choices and a sense of your own power. Never before in history has it been so easy to specify the character of the game and the characteristics of the playing, as these are all programmed in the first place. When we have in the past analyzed chasing or checkers, it has never been so simple to specify exactly what is required for each move and for each sequence in the games. In some ways, the emergence of video games is the culmination of games as a science, although this has already been anticipated by the work done in professional sports and in what is known as game theory (in games of strategy) and probability theory (in games of chance). Henceforth we should be able to program games to study all of their characteristics and also develop programs to record the nature of the players' responses in a thoroughly systematic fashion.

Even more important—seeing that it is possible to analyze computer programs in the same way—it should in due course be possible to specify the way in which playing video games helps with learning how to run computers. What is difficult in all of this, however, as it has always been in analyzing other games, is that even though we can specify the required moves in a game or the required moves in managing a computer, that does not tell us what the required psychology of the player must be. Still, with so much that is specifiable, it ought to be possible to hypothesize and finally reach some verdict on the latter.

Video Game Psychology

What follows is entirely speculative and must be regarded as, in many ways, only a first sketch of the psychology of playing video games and, to some extent, of playing with other toys.

1. To the outsider the most obvious characteristic of the player is his/her attention to the game and unwillingness to be distracted or to engage in conversation with the outsider while playing. The game leads the player to show persistent attention or *concentration*. It has been known for years, at least anecdotally, that a major task of schooling is to develop such concentration in matters of a symbolic kind. What has distinguished children over the age of about seven years from those under that age has been partially this characteristic of being able to pay attention to symbolic matters for long periods of time. When this ability is acquired as part of a person's character, then s/he has the ability to use it when it is necessary in further schooling or in the world of work. Sometimes one is familiar with children who have this characteristic in play (as in baseball, or collecting stamps) but do not seem to have it in schoolwork. Although this may be unfortunate for their school grades, it is nevertheless a sign that the power of persistence is there, if one can get it turned in the direction of school. There are many anecdotes in the literature on the arts, of children unable to persist in schooling, whose attention and character have been captured by some experience in music, drama, storywriting or filmmaking, and who, as a result, have subsequently been able to generalize their new powers, subsequently having little trouble with the rest of their schooling. Already there is an emerging literature of the same sort on video games, that is, of delinquent and marginal persons, who have become attracted by video games, have made them a center of attention and have now gone on to higher work in computer programming. Usually when one has such anecdotes, one is given little information about those who did not succeed in this way. The games are presumably not a panacea for everyone any more than is music, drama or film-making. Still, they do seem to be able to capture more interest than most of the other media or arts available to children. The persistent concentration we are talking about is sometimes mistaken for addiction. But its compulsive quality is the same experienced by those who have fallen in love,

or are taken by some hobby or sport. It is the kind of avocation that depends on the subject concerned. It is not an addiction where what occurs is a surrender to outside forces over which one has no control. We must distinguish such compulsive avocations from addiction. Video games are of this first kind. Our proposal, then, is that video games, like all other forms of exciting play, lead to a compulsive and persistent attendance on the games themselves. In this, they are like all games and all play which has long been noted for holding children's attention when they should be coming inside for their supper, or leaving the playground to go into school. Many parents have sighed with relief when, at last, their children became sufficiently attached to their dolls or blocks or railway trains that they played by themselves happily for hours without bothering them.

The video game as a toy is just the latest in a long series of devices which, in the history of the past 300 years, have drawn the young into the performance of solitary, albeit exciting, activities, giving them the experience of such concentration and persistence—in their compulsive avocations—as to incidentally rehearse them for their future careers in science, research, or any other kind of work where individual and solitary concentration on the task at hand is a requirement.

2. The video game also requires considerable *visual scanning* of the television screen. Young children have to learn the literacy of cuts, pans, dissolves, special effects, flashbacks, replays, skips forward, and zooms. It is not that they need to know self-consciously what these things are, but rather that they must know how to interpret the meanings that flow from them when they occur. And that is a kind of literacy that takes much of the first seven years of life to master during intensive television watching. One authority has suggested that modern children are better than their parents because they have so much television experience in just such visual scanning. There is research which shows that television-viewing, as compared with reading, tends to make the viewer remember and be sensitive more to

moving actions than to ideas. Television viewers are also very familiar with all kinds of visual transformations in cartoons and films. It is feasible (though by no means certain) that extensive television-watching might have prepared modern children for the highly complex task of sorting out the different and complex visual displays in video games. The little funny-shaped things or creatures on the screen have different visual characteristics and different visual movements. They move in either two or three dimensions and are often moving at the same time, so that the player must visually monitor a variety of kinds of movements in order to react appropriately.

3. There are also *auditory discriminations* to be made. Sometimes the sound effects are quite parallel to the visual events and are an accompaniment rather than a complication. But at other times the increase in tempo, or change in melody or dialogue or laughtracks signal new events in the game or the requirement of another kind of response. So the child has to learn to sort out the auditory cues from the visual cues and to take both into account at the same time in responding. By and large, in education in the past, we have tended to correlate visual and auditory influences (musical accompaniment for dramatic movies), and, in general, the video games still do that (e.g., explosions at the moment of missile impact). When games use them separately, however, something much more sophisticated is being attempted—and learned by the child.
4. *Motor responses* are usually zeroed in on by the public witnessing children in arcades pounding away on their levers or their letters. What needs to be kept in mind here is that quite difficult coordinations are required with considerable speed. In the usual case, the direction of the vehicle is to be properly managed by one hand, and the flight of the missiles to be appropriately discharged by the other. When one considers how much time most adults take in learning to drive automobiles, in learning to steer while declutching or breaking or indicating turn signals, it can be appreciated that the video game, early on, requires very considerable and skillful coordination

of a number of motor responses. Still, we have to remember we are dealing not just with motor responses, but with responses in coordination with visual scanning and auditory discrimination.

5. *Perceptual patterns of learning.* On a yet higher level than these other competencies, the child, while playing, must also induce the patterns in space and time, in terms of which the events will occur. Unlike most logical or symbolic analysis (as chess), the player has no time to sit and figure it out. In most video games that are popular, one can learn only under fire, only in the midst of action. By repeated exposure to the experience of achieving or failing to achieve the games' objectives, the player gradually induces the patterns that are there. That is, the player comes to react appropriately—often, however, with no great verbal clarity about why the responses are now the right ones. This is why we call it a kind of perceptual learning of the appropriate patterns. This kind of intelligence is a more basic kind than is usually dealt with in schooling. It's the kind you use when wandering around neighborhoods, exploring new cities, or fixing your own plumbing. It's the kind that was probably of greatest importance to the hunters and gatherers of yesteryear. It's the kind we use all the time without thinking about it, but which, with increasing experience, leaves us with the feeling that we know where such and such a place is, or know how so-and-so will react. We have never worked these things out logically but by being in those situations and with those peoples we have implicitly learned about them and how they work. We have learned the rules of the game, although they have never been stated to us and we could probably not easily put them into words. It is not hard to agree that this perceptual intelligence is the basic kind we use every day without even knowing it; it saves us from being run over by automobiles, from losing our way in cities, from getting into danger in the neighborhood and from mistaking the characters of those around us.

In the video game this perceptual intelligence is put to the service of inducing the rules by which these games

> are being programmed, although again that is not usually consciously done nor reflected upon consciously. In *PacMan*, for example, you must discover that the monster changes in character—at first, shy and slow, and later, fast and aggressive. In *Space Invaders*, you must realize that when you have shot down a certain number of them, they increase their speed in advancing upon you and the rapidity of bombs they drop on you, and you concomitantly must increase your own speed of launching your attacks. In *Break-out*, you must learn that if you hit the ricocheting ball with some parts of the paddle, it goes more slowly than if you hit it with other parts of the paddle and, as a result, your control is easier.

Whether we talk in terms of motor responses, visual scanning and discrimination, auditory discrimination or perceptual intelligence, all of these competencies, when applied to the special domain of video games, have to work mainly with such basic elements as *direction, velocity, altitude*, two or three *dimensionality*, and *horizontal* and *vertical movements*. The field for the operations of this intelligence is largely a spatial field. And, in being intelligent about these things, the player has to keep in mind several processes at the same time (*serial processing*). There is no room for a kind of approach that does one thing at a time.

In answer to the question of what good this all is, it will be some time before we have the research answers to that. In the meantime, there are several suggestions. First, people play games—especially video games—because they are exciting; and they are exciting because they simulate adaptive processes (of conflict, danger, strategems). As such, they pass the time in a more interesting way than would otherwise be the case. The major reason that players have for playing video games is that they are games and that the opponent is the mighty machine.

As far as the public good is concerned, it is probable, but not proven, that play at video games accustoms the player to the kind of activity that computers also require. One must sit down in front of a computer-like object and manage it in much the same way by levers and controls that a computer is managed. As in the case of the computer, there is immediate feedback for right and wrong choices. The management system of both game and computer are thus similar. It would be surprising if skill at one did not transfer to skill at the other; or if the attitude of being at ease with one did not transfer to being at ease with the other. The management of multiple variables, the visual scanning and the perceptual pattern interpretations are also, in general, the same. The persistence and focused attention on the visual screen is the same requirement for both. In both, one must give input to discover the correct responses; one cannot hold back.

Probably the most valuable asset for the experienced videogame player is the development of a motive to "play about" with the computer as s/he has played about with the games. Given the plethoral nature of the computer's possibilities, this kind of open and flexible attitude may be of greater importance in the future management of these machines than simple program control. Bernard De Koven, a game designer himself and the author of *The Well-Played Game*, is of the opinion that this kind of voluntary learning, which is typical of video games and of games with computers, may ultimately transform education with computers, making playing with them central to adaptation rather than merely preparatory or parallel, as is presently the case. Unfortunately, their exploitation in schools has not generally been of this character.

Conclusion

We have used the video machine to examine our original hypothesis that toys as machines were first seen as items of rationality, as human demonstrations of the way God runs the Universe. While God plays a little part in modern argument, the debate continues between those who believe computers can capture the essentials of our nature (as thinkers) and those who believe that the computers' function is much more restricted than that.

But we have used the video game also, because, like the toy, it is also a vehicle of solitary concentration. That such a great effort is being made by some to insist that games be put into these machines so that children are required to play with each other is almost a vindication of this view; indeed, some video games permit this alternative. One game inventor has proposed the interesting idea that players should be able to stop the game at any point to consult with each other about alternatives. But all of these attempts, valuable as they may be, merely underline the essential solitary capability of the game itself.

The role of the toy in modern history, we would claim, is both to represent an isolable condition of nature (as does a scientific variable) and to induce solitary activity on the part of the player. The toy is a concrete isolable and with it the player becomes an isolate; in this way an immense change is served upon civilization.

But, in addition, the video game as a toy, although it illustrates a liberation of human beings by technology, also illustrates the tremendous power that technology comes to exercise over human beings. Every parent of a modern video-game child has felt an uneasiness at the way in which this new machine takes the children away from their usual behavior and seems to possess them for hours and weeks and months on end. This toy, as a machine, not only isolates the child; it possesses the child. Dr. Frankenstein may indeed have created his monster, but the monster soon began to destroy everything about it. In similar fashion, many fear that our world may well be taken over by our computer "games" and that it will end (as, nearly, in the movie *War Games*) by the computer possessing us, rather than us possessing them. The paradox here is that we fear that the machine, which begins as something that does us a service by running by itself, may end up doing us the disservice of running us. What brings us more control may end up controlling us. The toy participates in this cultural ambivalence over control just as it participates in the cultural ambivalence over bonding and isolation.

CHAPTER 6

The Technology of Infant Toys

Chapter five demonstrated that once again there is a technological invention (the video game) that continues to transform the nature of childhood. For whatever television did or did not do, it took children off the streets and out of street play for an average of 35 hours per week. It made it much more likely than before that they would play solitarily in their living room alongside the television set with television-derived toys than they would play out of doors with other children. It made it much more likely that they would not be as good at street games and the politics of the street as they were in prior times. It made it more likely that they would have more information about the larger world in which they lived. That children have increased their play of indoor board games and puzzles these past 50 years (from 20 percent of toy sales in the 1920s to 40 percent in the 1970s), probably means that what they have lost in physical street-play skills, they may have gained in small-group symbolic interaction skills.

The Literacy of Objects

There is a sense, however, in which books, toys, television and computers are all a part of the same movement in modern civilization that shifted its members into a more "privatized" world out of the collective world of the Middle Ages. Marshall McCluhan made much of the fact that while print privatized mankind, television established a "global village" and a different, more action-oriented, way of relating to other people. Although there is truth in this, what is more compelling is the way in which both books, as well as television toys and computers, make people more solitary. In their very different ways, TV, games and computers may bring people newer forms of communication, but they also immerse their practitioners in more symbolic, less physical worlds. So for our purposes their solitarizing effect is more fundamental. There is such an enormous difference between the non-reader who spends most of his/her childhood hunting and fishing and grows up to be an effective farmer, and the city child growing up in an apartment spending most of his/her childhood with books, toys, television and the computer—that we think the latter activities should all be classed together before they are differentiated. Books, toys, television, and the computer are components of the symbolic literacy of the information society. One learns how to "read" objects (i.e. toys), read books, "read" television and "read" computers.

Given this larger-scale picture of events, we move to the first anomaly, which we seek to make clear in terms of our present thesis on cultural ambivalences about toys. The anomaly is that although toys are now a striking cultural event, there is not even an embryonic theory of toy technology. Ours is a technological civilization; yet the means we use to communicate with children about that technology has hardly been studied.

In this chapter we become engaged with the technological role of toys. One would imagine from the story just told that by this time in modern history there would be profound analyses of the way in which infants and children are transformed by the technology of toys. But the technology of toys is missing from modern child study. Most of the many systematic reviews of child development do not even carry any reference to toys. Some carry no reference even to play. It is one of the anomalies of modern child psychology that while every one knows that children spend most of their free time playing, those who have created the "science of childhood" in our era have largely neglected the subject matter of play. Imagine an anthropologist going to another society that based its whole life on dancing, and returning to write a book on that society that included nothing about dancing because he personally didn't care for dancing! You would say he was a pretty bad anthropologist. Well, that is what modern child psychology has done by paying so little attention to play and toys.

On the surface it could be argued that a great deal of attention has been spent on toys. In a recent survey it was shown that toys are used in about a third of a sampling of articles from three of the major journals in child psychology.[1] However, when we look to see how the toys are used, it is seldom for the study of toys. Reading the journals one cannot usually tell which particular toys are being used by the researchers. Rather, the toys are used as rewards to get children to do things that the experimenters are interested in seeing. The toys are used as a part of the experiment to engage and involve the child, so that the experimenters can discover how the child learns or thinks or speaks. In most of this, there is a marvellous disregard of the toys themselves, as if the kind of toys that are used don't matter at all. One toy is as good as another and all of them are like sugar; one bit of sugar is as good as another, and what you get out of any of it is sweetness or, in the case of toys, fun. The assumption seems to be that the world of thinking, learning and speaking is very real and to be seriously studied in all its minute details, but the world of play with toys is not very real, not serious and all much the same thing with no worthwhile details or differences within it.

There are, of course, some child psychologists who have studied children's play, and most of these (along with most

Table 6.1. THE TABLE OF CONTENTS OF A TYPICAL TEXTBOOK IN CHILD PSYCHOLOGY.[1]

- Physical growth
  - Rate of growth
  - The competent infant
  - Secular increase in size
  - Growth of different systems
  - Principles of development

- Motor development
  - Locomotion
  - Manual skills
  - Handedness

- Perceptual development
  - Visual constancy
  - Depth perception
  - Perception of form
  - Sensory and motor coordination

- Cognitive development
  - Piaget: The sensorimotor period
  - T. G. R. Bower on *object permanence* [italics author's]
  - J. S. Bruner on modes of cognitive representation

- Language and thought
  - The functional importance of language
  - Language as the container of thought
  - Language as a determinant of thought

- Theories of language acquisition
  - Learning theory—Skinner
  - Innateness theory
  - A resolution of divergent theories

- Language development
  - Communication processes
  - The sequence of language development

- On becoming a social being

- Attachment

- The nature of attachment
  - The course of attachment
  - Theories of attachment
  - Stranger wariness and stranger anxiety

- The significance of early social experience
  - *Institutionalized children* [italics author's]
  - Early deprivation in monkeys
  - Sensory stimulation and deprivation
  - Freudian child-rearing variables
  - The role of the father
  - Multiple mothering
  - Child day-care centers

[1] From "*Human Development*" by R. Vander Zanden.

other theorists of child development) agree that the physical environment is critical to the child's development. But they also treat that environment in the same diffuse general way as do those who use toys in experiments. They simply do not give detailed study to physical environments, as if different physical environments do not have different cultural effects. Houses, furniture, bedrooms, toys, playgrounds, schools are all the same thing. Usually they are seen only as a part of a general economic or cultural condition to be called, e.g., "lower socioeconomic status," or "Sioux Indian tribal culture." When objects are studied in detail, it is within experiments, and then what is studied is the effects upon the children's play of, e.g., objects that have two colors versus those that have one color, or objects that are squares compared to those that are round, or the effects of boxes with holes in them as opposed to boxes without holes in them.[2] The interest here is in the abstract dimensions of objects (their color, shape, or volume) not in the effect of any particular real object in the life and development of a child, such as a teddy bear, a tricycle, a sandbox, blocks, or a doll. Seeing toys as an undifferentiated part of the culture (the environment), or as the expression of some underlying physical dimensions (color, shape), makes the first approach too general and the second too abstract. Toys as real and particular cultural things influencing the moments of everyday life are omitted.

In recent years very systematic data has been developed about the physical, mental and emotional growth of children, but no psychological data has been developed at all on their bedrooms, cribs, toys, backyards, living rooms, diapers, or shoes, etc. Table 6.1 shows the table of contents of a recent well-known textbook in child psychology. These correspond to the itemized contents for the first year of life, and they are quite typical of what is to be found in psychology texts of this kind. First we notice that there is only one category out of this whole array that might possibly have to do with the impact of the physical environment in general and of toys in particular: "object permanence." To judge by this particular textbook, the physical environment is not very important. The only other possibly relevant category is perhaps "institutionalized children."

Object permanence is a notion invented by the extraordinary Swiss psychologist, Jean Piaget, who, as a philosopher and biologist, was interested in how children first developed philosophical concepts such as space, time, change and causation.[3] How, he asked, did the major problems that have worried philosophers over the ages first come to children's minds? One of these concepts is the concept of the object. When does a child first know that an object exists outside of the child? Piaget had pointed out that the young child immediately loses interest in something s/he cannot see. If you put the milk bottle that s/he wants out of the sight of a three-month-old baby, crying will decrease markedly. Out of sight is out of mind. But by about ten months the same baby will not be so obviously put off. S/he will persist in looking for it. Thus, says Piaget, we have a demonstration that the child now must have a memory of that bottle even when it is out of sight. S/he must have something in mind that gives permanence to the object even though the object can't be seen.

In the past 20 years there has been more attention to this issue than any other in the study of objects in infancy. There are many experiments on object permanence, some agreeing with Piaget, some disagreeing; but all of them are trapped into his idea about objects. However, this issue has very little to do with cultural objects as such and much to do with the powers of the mind to remember and to search for objects. Like the list of topics in Table 6.1, the experiments on object permanence again become discussions of the human technology of mind, not of the technology of objects. What, for example, is the impact on the head of daily—or nightly—sleeping on the same pillow, or of sleeping without any pillow? What about the child's feelings about that pillow, or about that blanket or that soft toy? A previous chapter showed that a few such objects have been the concern of some educators and psychologists. But no one has been concerned with all of the objects, or with the study of the day-to-day living with objects and things.

The Illiteracy of Toys

Why is it then that the technology of the person is so easy to study in the twentieth-century social science but the technology of objects is not? Modern civilization has been shaped by technology and has not had any problem in studying and developing that technology to the point where it has now invented objects that allow us to leave this world or blow it up forever. And yet when we study people there is no study of the effects of objects upon them. When we study children growing, we largely leave out that which has formed the nature of modern man.

One reason, and there are many possible reasons, is that we are still afraid of the machine; we glorify it, and yet it frightens us. So we do not mind studying human development as if it were a machine—a physical, biological, perceptual, cognitive machine of the kind outlined in Table 6.1. We want to know what determines life within ourselves. To do so is to be scientific. But we do not want to know how objects or machines determine us from the outside. That would be just too deterministic; that would be giving in completely to the machine control of the Universe. If we study how our own minds act like computers, that gives us more freedom than if we think of a situation in which our minds are controlled *by* computers.

Another reason suggests that the problem has to do with the notion of freedom in modern society. Industrial society has led to the control of the workplace at first by machines, and then by the time schedules that these machines required for maximum productivity. The human way of life once dominated only by the abundance or scarcity of nature, or by the rotation of crops and seasons, has come under the rigorous schedules of the office and factory. This rigor has, in turn, led to the very modern notion that life can be divided into that which is work and that which is leisure. This same division does not seem to have been anywhere near as important in many earlier societies (except in slave societies). And some earlier societies worked very little by our standards. It was often of relatively slight duration, in some accompanied by song, and, in most, subordinate in importance to rituals and events, which represented a more sacred view of the changes in nature and the changes in human beings. But, forced into this more rigorous and work-scheduled life, we moderns have come to give great weight to our own leisure, our own freedom and our own choices. We compensate for our loss of work choice and of life control, by overemphasizing the importance of the personal choices we have. Perhaps this is a reason why we can, paradoxically, easily analyze ourselves as working machines (our science of psychology) and yet strongly resist knowing how the external world shapes our every moment of life.

But then, perhaps, there is another reason. As we get older and develop a very considerable internal life and imagination, we no longer actually feel that we are so much affected by the external world, at least on a day-to-day basis. Our minds are full of daydreams, and these act as buffers between us and the impact of the traffic, the boss and the neighborhood. When we look at children we may assume that they have the same powers to protect themselves against the world of things. We talk constantly about their imagination, as if it is a very precious gift that makes children remarkable and able to insulate themselves from everything around them. Even some of those who have written about toys have suggested that children don't really need any toys because with their imagination they can make up their own playworlds without them.[4] But this is to impose a very adult way of feeling about things on children. Babies can't possibly have such an imagination. Undoubtedly they have some partly sensuous, partly internal stream of consciousness. But their very mental existence depends intimately on its continued relationship to objects. If young children were blindfolded for the first months of life and then the blindfold was taken off after several months, it is possible that those parts of the brain connected with vision would simply not have developed. At least, that is what has happened in some animals. What comes in through the eye from the objects around the eye, develops the brain. If the stimulations don't arrive, the brain doesn't grow. Children, in the second and third years of life, do, like us, gradually develop more imagination, with which to make things up as they go. But even this making-up depends on the use of objects of some sort to make the fantasies happen. It is not until the very end of childhood, at the onset of adolescence, that, in general, our daydreams can do fairly well all by themselves without anything immediately out there to help them along. I will always remember watching two eleven-year-old boys at a progressive school sitting on the floor and talking their way through an advanced scenario about space travel, in which all they did with objects was occasionally sketch a direction on a piece of paper. But theirs was a very advanced state. Objects of some sort are essential in earlier child development.

But again there may be yet another reason for our disregard of objects. Modern Western civilization is based on individual development and individual concentration. Whether we call this individual achievement for the good of the community or for entrepreneurial success, it still requires a great deal of autonomy as a normal part of the successful way of life. We therefore cherish that autonomy in ourselves, just as we cherish the freedom of our leisure. We do not like to think of ourselves as being controlled from the outside even while, at the same time, we study ourselves being controlled from the inside, by brains, by glands, by gonads.

Our own ambivalence requires us, it seems, to treat ourselves like machines, on the one hand (in medicine and psychology) and not like machines on the other (in what would be a study of environmental effects, objects and toys). Surely, we say, the environment is important, but it is not that any specific environment is important; it is just that environments in general are important. By treating the actual concrete physical conditions of our living as the abstraction "physical environment" (i.e., some global diffuse thing), then we do not need to regard it in a specific way. Children will inevitably develop the competences listed in Table 6.1 and it doesn't much matter which particular environment or object or toy comes into their lives.

In the list of items in Table 6.1, the other category that might have to do with environments is that of "institutional deprivation."[5] This refers to a series of studies originating after World War II, showing that when children were brought up in institutions with a minimum of interaction with others, usually lying in their own cribs and seeing little of the outside world, they often appeared to be severely retarded. The discovery of these profound effects of institutions led subsequently to some modification of institutions to make sure that young children received much more humane treatment and much more sensory stimulation by toys and objects in the first two years of life. These examples seemed to show that a physical environment, indeed, could be very important, although at the time most of the emphasis was put on the importance of mothering the infant. In subsequent research it was discovered that it wasn't just mothering that counted; it was also sensory stimulation. Two children with equally good mothering could be different if one child had much more access to play objects than the other. But such studies have not been followed up with very specific research on the particular objects involved. The paradox continues that vision, audition, prehension, locomotion and language continue to be studied in infinite and precise detail but objects are not.

We should of course consider that perhaps the physical environment and its objects don't really make much difference, and apart from institutional or neglectful extremes, are nothing to be particularly concerned about. Or, we can suggest that while the physical environment is important, environments are relatively malleable and not specific. The infant may need an object to play with, but it doesn't matter which object. Any object will do: A rattle works as well as a ball, which works as well as a pot or a bit of stick. The argument would be that the theorist can leave the environment or the objects out of the science because so many different objects or environments will fulfill the same function.

This then is our controversy. Theories of evolution and technology appear to suggest that particular environments and particular objects have been critical in human development. This same orientation might argue that the contemporary ignoring of these matters grows out of the fear of machines, the fear of loss of freedom, the fear of loss of authority, and an adult-centric failure to recognize the sophisticated nature of the free imagination and a willingness to attribute it to children who cannot yet possess it. In all of this, modern psychological science and modern religion come together in their belief that what is central to understanding human nature is the human being, not the human context. The defense of this modern position is that physical environments and objects, despite their importance, are interchangeable in their effect, and one is as good as another. In this work, however, we take the opposite view: that there is a relationship between evolution, technology and whether or not you have your own schedule of toys.

In their own bedrooms children wake up and go to sleep, and here they spend a considerable part of their day. Here they get instruction and amusement in those things that they pursue for themselves. From an array they choose first what to look at, and later what to grasp and mouth, and for minutes and hours and ultimately days and weeks they concentrate on what lies around and before them.

We know that having refrigerators has changed our shopping habits and the way we eat; that automobiles have created suburbs, facile love-making and general mobility; and television has changed how we behave together during our leisure time. Does it make any difference to grow up with a roomful of toys? Psychologists Csikszentmihalyi and Rochberg-Halton have asked: "Does it matter whether a King has a crown or a throne, a judge a bench, a criminal a gun, a cop a uniform? Don't we need to identify people and they identify themselves by their familiarity and facility with appropriate objects? Don't objects bring order into the worlds of those who use them and the rest who can recognize them?" In these terms, aren't children nowadays those creatures who are known by their toys, plays and games, who are classified, according to age and sex, by their toys? Don't their toys order our perception of them and bring order into their ideas of who they are themselves? There is no facile answer to these questions, but these psychologists believe that the things around us are inseparable from who we are.[6] Like our clothes, they define and adorn us and create expectations among others and ourselves about how we will behave. They are not just objects to be picked up and thrown away. They give shape to our experience, and our consciousness. We are nothing without them. Material goods are the measure of the adult; and the toys, of the child.

We have discussed in this chapter the paradox that our civilization, which is based on technology and argues that toys are important in child learning and development, nevertheless seems to neglect the development of a study of toy technology.

CHAPTER 7

The Toy as Infant Tool

So we are driven by technology, we acknowledge its effects on human and cultural development, we stand witness to the invasion of facsimilized technology in the lives of children (toys); and yet we do not have any science of toy technology. In this chapter we ask whether there is any evidence that toy technology and body technology reach for some concurrence in the first year of life. Does a toy ever truly match emerging competence because of a synchrony of toy design and human design? Is a technology of toys possible? For the first two months of life the baby is a relative reflexive, tropistic, if brilliant, little machine, whose responses are triggered by circumstances inside and out. The baby is itself at its most "toylike" stage, for the appropriate stimulation will make it suck or make its eyes follow objects because it does not have much control over its own behavior.

Table 7.1. INFANT TECHNOLOGY AND TOYS

Infant technology (0–2 months)	*Toys usually offered*
Unsteady focusing of eyes	Mobiles
Unsteady tracking of movements	Visual displays on crib or walls
Preference for regarding faces (eyes) or patterns, and for mother's face	Soft toy or animal
Will grasp what is put in hand but not look at it	Rattles, Plastic rings
Will suck what is put in mouth	Teething rings
Reacts to sounds, music, etc. (gives most attention to speech) and will look for source	Music box, radio
Will move in accordance with mother's speech	

The First Two Months

What is needed is some attempt to see if there is any logical connection between, for example, first-year infant toys and first-year development. Is the infant in the first year as shaped by toy technology as it may be shaped by the nursery ecology with its isolating infant apparatus? To consider this means playing attention here only to those aspects of the infant that may involve its ability to relate to objects. We do not need to deal here with other important social and emotional issues in childhood unless they enter into this relationship to toys. First we ask what the baby has going for it that enables it to relate to the object world and, secondly, in what way are the objects available in that world—particularly toys—a match for, and extension of, this competence. In Table 7.1, for example, is a very general listing of baby technology for the first two months of life and the corresponding toys often given to babies, as if the toys had some relevance for them. It is this relevance that must be examined here.

In the first six weeks, or two months, most parents will have the impression that their infants are not capable of doing much on their own. The infants seem mainly occupied with food and comfort. It is also true that in recent years various experimenters have found out that there are some ways in which it can be shown that newborns are much more capable than we originally thought, and popular articles have been written with such titles as "The Amazing Newborn," "Baby, You're Incredible," "Newborn Babies See Better Than You Think" and "Bringing up Superbaby."[1] To take one example, it has been shown that infants in the first month of life can suck a nipple at the intensity required to bring a picture into focus or to let themselves hear their mother's voice, not a stranger's, on a tape recording. In short, though there is little that infants appear to be able to do, sucking is indeed their skill and they have considerable competence at it if we find out how to use it in our experiments. Perhaps we should talk of the amazing experimenters rather than the amazing infants.

When the young baby is in a state of discomfort, the age-old way of consolation has been to carry it around, to burp it, rock it, etc.—the very opposite of the program of isolation spelled out in the apparatuses discussed in Chapter 3. For this reason, some nurseries have rocking chairs. They are a symbol of an older order of togetherness and apparently still work as well as ever. We are told that some parents take their babies out for a ride in the car as a way of pacifying them; that way they can put them in the car seat and achieve the same consolation without even holding the baby!

In this first "fragmentary period" of development, how valuable are toys—particularly as even some of those who write about toys for children in an expert way seem to doubt their value? We should note that many authorities feel that it is the parents' social relationship to the baby that is the most important part of their early playfulness, not their use of toys. These experts suggest, for example, that even at this early 0-2 month stage, one can do the following with the baby:[2]

1. imitate it by making the same noises that the baby does. By two months the baby will stop making the sound and pay attention to you when you do this, and may even then respond with a repetition of the sound, also with a smile, indicating recognition and perhaps playfulness.
2. baby-talk with a high voice and long vowels which particularly seems to catch the baby's attention.
3. make funny clown faces; these also attract attention.

4. push the baby's legs back and forth as it lies on the table, as if it is making a bicycling action.
5. stick out your tongue at the baby, and again it will watch attentively.
6. dance with the baby in your arms.
7. sing to the baby.
8. put your finger in the baby's mouth and feel around inside.
9. nibble your baby's hand lovingly.

These are all ways in which parents sometimes "play" lovingly with their infants. It is usually assumed that this is play, because both parent and infant appear more relaxed when they are doing this, often smile and may laugh. Whether we can say that the infant "plays" in these games induced by the parent is difficult to know. The infant is more like an audience, smiling at the parental antics. Perhaps the parent is more of a player onstage for the child, who is an appreciative audience in "plays" 1 through 9 above. Perhaps the infant is learning theater, as the context for play.

The *object play* in these first few months seems clearly to be a result of the adult's toy training. Thus, many practical books advocate that you train the child's sense perception by dangling objects in front of the child so that it will follow them with its eyes and presumably improve eye muscle and visual-tracking skills. You are told to move these objects between about 8 inches and 24 inches from the baby's face. Various objects are suggested as a part of this object-training program—namely, rings, bells, balls, checkered patterns, mirrors, etc.) You may ring the bell first to this side of the head (and the baby looks for it) and then to that side of the head (and the baby looks for it). You are asked to note the way that the one-month-old baby looks at the general outline of your face (hair, cheeks, etc.) but by two months is more concerned with your central features (eyes, nose, etc.). By two months, babies begin to look at some of the objects you have been holding and moving before it in a very "hungry" way, "as if they just can't wait to touch and play with them." By two months the baby has also definitely discovered its hand, and instead of the hand just passing aimlessly by its eyes, it is now held at length and looked at carefully.

This brings us to an important philosophical dispute as to whether the infant relates directly to such objects, or only learns to relate to objects because of the way in which people around it treat those objects. Most psychological theory states that we are basically social animals and learn about objects as a result of the behavior of others toward us and toward those objects; that seems probable. But there are some jarring notes. It appears that there are considerable individual differences even in the first year of life as to whether children are mainly concerned with others or with things.[3] There may, indeed, be a temperamental disposition to be more concerned with people or with objects. Presumably those with the first disposition might more probably end up in the social services, and the second, more probably, in the physical sciences, though we add, hurriedly, that there is no clear data on this outcome.

Once again, however, and such theory aside, it is clearly a part of modern child-training advocacy to introduce object-play training into the infant's experience. This is a civilization in which material objects, gadgets and vehicles have become central to consciousness. It would be strange if parents did not early introduce their infants to the same object consciousness and appreciation.

When it comes to evaluating the particular toys in Table 7.1, we are on shakier ground. There is at least one study that showed that infants in a particular nursery in Kansas would actually pay attention to, and play with, crib toys if they were available.[4] Furthermore, having those crib toys there did not disturb their sleep. The children were compared with themselves—the occasions they did have toys available compared to the occasions they did not have toys available. If we can assume that such attention and such play is a kind of learning, then they have benefited from the toys. While there is no good reason for not believing that such mental and physical activity is of value, because the organism appears active rather than passive, we have no certainty about this. When they are without toys, infants might be just as active visually. In this, it might be wise to follow the *principle of the worst error*, which says that when two outcomes are feasible (babies learn from toys vs. babies do not learn from toys), it is preferable, for the babies' sake, to follow the least damaging alternative. That is, if we think babies do not learn from toys, depriving them of toys would be a worse mistake than thinking and acting as if they do learn from toys, when, in fact, toys might make no difference.

Of the specific toys on the list, no one seems to be very excited about the old-fashioned rattle, which may be of historical value. It used to be said that the noise of the rattle kept out evil spirits. One of the few researchers in child psychology to venture into practical recommendations about toys, Burton L. White, contends that one- to two-month-old babies will look at suitably designed mobiles, but that, unfortunately, most mobiles are contrived to look attractive to the customer rather than to the child, who, lying on its back, has a very different view of what is going on. He suggests that a mobile needs to be placed to the baby's far right because that is where babies prefer to look 80 percent to 90 percent of the time.[5]

Perhaps in response to this kind of recommendation, Environmental Programs Incorporated research laboratory, under the direction of Dr. Richard Chase of Johns Hopkins University, has devised a "visual display," a sequence of washable foam-filled panels, each having a picture of a fish, a dog, a cat, a boat, a face a bull's-eye and an unbreakable mirror. These can be fitted together and placed alongside the crib for the baby to look at and range from simple patterns, preferred by younger babies, to more complex ones, preferred by older children. They contend that young babies, especially, respond to the bold colors and high-contrast edges between light and dark, which is the kind of finding that comes out of experimental research on young infants' perception. For children who are slightly older, the same panels can be hooked together as triangles or squares to be played with, or to be hung over the top of the crib.

What this seems to mean is that it is the technology of the visual display that should be the major concern for these first two months. At present on the market we have displays that rotate in the breeze, and those that move as a result of the baby's agitation on the bed. Some even have a music box incorporated. It generally is recommended they be about 14 inches above the bed within the baby's 18- to 24-inch visual range.

Richard Chase has also written extensively about a group of toys, including a red vinyl tubing ring about five inches in diameter, a stick with rings that slide over it, a tracking tube, a mylar disc, a clear rattle, visual pattern cards, some of which have since become the Johnson & Johnson *Playpath* child development toys.

He is able to show from extensive research that infants will spend more time with these toys than with other prototypes that were used; that they do seem to enjoy and exercise ingenuity in their actions with these toys. Basically his rationale is that it is a worthwhile thing for parents to think of their babies in the same way that infant researchers think of infants. He says, "Our efforts to design play/learning materials for infants and maps of information about infant behavior for use by caretakers have been guided by an interest in optimizing opportunities for infants and their caretakers to share experiences that support learning and the development of broadly competent repertoires of behavior" (1975).[6]

There are two points to this. One is his recommendation that parents should think about their infants in the analytic ways in which psychologists do (as creatures having visual discriminations, auditory discriminations, tactile sensitivities, etc.), and that they should be concerned with "optimizing opportunities." Unfortunately, although the information that pours forth from developmental psychology about infants is impressive, whether that way of "thinking" about infants is the healthiest or the most relevant for most people is a matter of debate. For example, a folklorist, by contrast, might point to the long history of mother-infant game play, and advocate the usage of mother-infant lullabies and games as the most humanizing thing that a parent could do, as well as being an aesthetic training, rather than give attention to the various analytic categories invented by psychologists.

With respect to infant education, Chase suggests that the argument for it is the same as that for education in general. That it is important to optimize growth, "by designing environments for infants that elicit attention, engage interest, support exploration and contribute to the development of competent behavior." It is hardly an advocacy that a twentieth-century educated person would usually disagree with. Yet it contains within it that insensitivity to the difference between growth which is arranged by outsiders, and growth which occurs through the voluntary activity of the subject. It is the latter that adults of our civilization have not been good at permitting to happen.

And yet, putting aside extreme cases, how much stimulation does a child really need? And is an environment of constant stimulation really required in the first year? How much stimulation is enough? And what of the cultural evidence showing the habit of physical separation of the baby from the parent given earlier and of the possibility that all this emphasis on toys ultimately results in them being used as substitutes for social interaction, rather than simply for improved education?

Still, to take up the cudgels for stimulation once again, what is really surprising about all of this is how feeble is the technology when we consider what we already know about the baby's rather remarkable capacities at birth. Even at birth the baby will look to and away from a source of light, focus on a target, track objects, shift to a new target, scan a visual field to find a contrast, focus on corners and edges and lines, show a preference for scanning verticals rather than horizontals and scan contrasting black-and-white. That's just at birth, and while all of these competencies will take several months to consolidate, and while there is much vacillation in them, as Table 7.1 expresses, there is clearly, a great deal here that a more fully developed technology of infant toys could make use of.

It has already been shown that a light-year transformation has been introduced by the video game. Some brain-injured persons with little or no motor control (just like babies) but with well-developed intelligence (unlike babies) have, through computers, developed new ways to report to the rest of us. With the aid of pressure on, or direction of, a button or joy stick, some have even become computer programmers.[7] Imagine if the baby's crib was hooked to a computer, which was itself adapted to the baby's competences of a visual sort. Given a certain degree of activity of the baby on the mattress, indicating wakefulness, the computer would switch on, shining a light into the baby's eyes and presenting visual images on a screen above the baby's head. The reflection of the light (or laser) in the baby's eye would show the computer the direction of the baby's gaze upon the screen, and the visual array on the screen would adapt itself to that focus, changing the lines or patterns to accord with and increase the infant's sustained focus. If the infant turned away from the visual screen for any length of time, the computer would go out of action except for some quietly alternating, but dimmed, light. To give an example, the infant's tendency to scan a vertical would be abetted by a vertical that turned into a continuously extending line in a three-dimensional field (not unlike the *Road-runner* video games). Once the infant showed the capacity to track at a certain rate to meet this challenge, gaps would appear in the extending line, requiring the infant's eye to jump and ultimately to track in an increasingly sophisticated fashion.

Infants also orient themselves at birth to sounds and can distinguish human from other noises, showing a preference for the voice. This orientation also makes possible an adaptation of the computer on an interactive basis. Ultimately it may be possible for a brain-scan register set into the bed to indicate to the computer which part of the brain is involved and therefore with which response it should reciprocate. The virtue of this ultimate tactic would be that brain-level maturity could give the cue for more advanced programming from the ecological computer toy. The promise of this kind of ultimate toy ecology would be the constant responsiveness of the environment to the infant's activity. Clearly this is the direction in which the toy world has been headed these past 200 years, and what is suggested above is just the sophisticated extreme or, if you like, a caricature of all this activity. Given that the timing of the computer is always sequential to the involvement of the infant, it is not an interference with the infant's initiative, but is, instead, an enormous amplification of, and reward for, its initiative.

Any such caricatural sketch helps clarify the "hurry up" assumptions behind modern American character-training, as these assumptions are turned to practical use by eager, achieving, ambitious parents.[8] These parental consumers are of the view that children's growth can be accelerated, that they can purchase toys that will make even the acceleration occur at a faster rate and that those who get such acceleration get into college and become professional and business successes. All is based on the largely unproven (but not unreasonable) assumption that engaging the child's attention is basic to fostering the child's intellectual development. It is also based on the (not unreasonable) assumption that if one lives in a responsive world one's growth is accelerated, and again on the (less reasonable) assumption that if that responsiveness is machine-instigated, that is also of value. Regarding the latter point, if one judges by parental responses to the video game and its feared consequences, quite a segment of the population experiences considerable fear and hysteria about being taken over by machines.

The ultimate ecological computer toy, described above, which surrounds and adapts itself to the level of stimulation the baby requires, may be, then, a Frankenstein toy. Or it may be a nightmare. Or it may merely explicate the assumptions underlying what has been occurring in the toy world these past 200 years. And the toy may do this without our being aware of its linkage to our historical themes of object responsiveness and parental ambition. On the other hand, it may make clear the direction in which we are heading historically, in which every child, regardless of the presence of good or bad parents, has equal access to the stimulus-enriching machine. Nobody need be stimulus-deprived, as long as they have the great Ecological Computer Toy!

From a more skeptical point of view, this chapter on what toy technology might be serves mainly to indicate the deficiency of a society that is so unconcerned with children themselves that it ignores what the children are most concerned with, their play. As a result, society's technicians have simply not carried out the research that would indicate whether the above reasonable or unreasonable assumptions are invalid or even worth pursuing. Until the assumptions are researched more systematically, we cannot know the effect of stimulation: whether it is more important for some individuals than others, whether too much of an object or a machine is an extreme disadvantage for social development (as many people fear) or whether none of this matters very much because the baby quickly turns off that which it cannot manage and withdraws into sleep. The question, then, is whether we can protect ourselves against the machine-toy-monster or whether we even need or want any protection. Parenthetically, it is already difficult enough trying to get the baby out of the crib with all those baby gyms and mobiles hanging around, which get tangled in your arms and around your neck. What will it be like to get entangled in the computer baby-stimulator?

So the final verdict on our toys in Table 7.1 is that all of them may have some stimulus value for infants, but none is necessary in the first two months of life, when the ordinary objects of the environment (sides of crib, wallpaper, etc.) are probably sufficient stimulation for the infant's development. Nor, on the other hand, can they be assumed to do much harm; and perhaps, in their varied nature, they get the baby somewhat accustomed to the stimulus bombardment, which will come when the child gets older and moves into the urban "blip" culture.

Perhaps it doesn't matter what one learns from the booming-buzzing confusion of your toy world. What matters is that you become accustomed to the fact that the world is going to continue to be a booming and buzzing confusion forever afterward. Toys may be about habituation rather than learning, about getting used to a world in which the symbols of "hurry up" intelligence are everywhere. Most cultural learning is overlearning: that is, if a society wishes to achieve a particular objective, like highly achieving youngsters, it signifies that concern in multiple ways; it doesn't leave the matter to chance. In this sense, toys are but a part of the message that parents give themselves about their concern for their children's achievement. *They* may need it, even if the babies don't. The culture of toys is in the first place, then, for the parents and only in the second place for children. Paradoxically everyone keeps asking questions about the role of toys in children's growth. No one ever asks questions about the role of toys in parental anxiety about children's growth. Yet the toys may well be signals of the parent's expectations rather than assurances of the children's progress.

Three to Six Months

From three to six months, what is most characteristic of the baby is its vigorous autonomy, characterized by an active interest in its immediate environment (a yard or two square), its smiling, its reaching for, grasping and putting things in its mouth. Although it will mostly spend its time in a horizontal position, finally by six months it is sitting up.

In its relationship to objects, Piaget was most struck by the baby's abiity to do two things: First, repeat its responses to any source of stimulation—that is, make things happen again that have already taken place, e.g., if the thumb has been sucked once by accident, the baby tries to get it back into its mouth again for more sucking (which he called a "primary circular reaction"); and secondly, a few months later, if some impact on the surroundings has been caused accidently, like banging the crib with a foot, the baby tries to repeat that effect to make it happen again (which he calls a "secondary circular reaction"). Piaget was here focusing on the difference between responses to the subject, and responses to an object. This arose from his interest in the baby's dawning awareness of distinctions between the self and the world outside the self, the distinction between the subject and the object.[9] The philosophers from whom Piaget took his cue were particularly interested in that distinction. As we have seen, the argument between Descartes and Pascal was an argument over the importance of the external (machine) world versus the internal (spiritual) world. In modern times, the baby's interest in toys can be used as an instance of its dawning awareness of this difference. Philosophers from that earlier tradition have felt called upon to explain how a baby comes to make the distinction between subject and object. We have already shown that psychoanalysts who have pictured the infant as preoccupied with its own pleasures of feeding and comfort, have felt that the transition from totally personal concerns to concerns with the object world was helped by having a "transitional object" that shared in both worlds. It was a toy that was also a smelly, milk-stained personal object, like the "oneself with mother" part of the baby's subjective world, and yet was also a separate object on its own with its own blanket or Teddy Bear properties.

But there are other philosophers who suggest that the distinction between self and the objective world is wired into the baby in the first place, and that it is indicated by the way in which the baby can discriminate its mother's voice and her appearance from that of others, by the way in which the baby adapts its position to the position of the other when sitting on the mother's lap or being picked up in her arms, by the way in which it adjusts its mouth to the nipple when feeding. All of these things, they argue, show the baby's ability to make appropriate discriminations about objects external to itself. They note, similarly, the baby's sympathetic responses to the emotions of others in the immediate environment: the mother cries, the baby cries.[10] For these more modern philosophers, the baby's problem is not primarily that of establishing the distinction between itself and the external world (because that is already there), but of *integrating* the kinds of knowledge that are becoming available to it. What is most remarkable, they say, about this period of three-to-six-months, therefore, is not the subject-object distinction but the establishment of new ways of integrating experiences. The baby as philosopher is, on these terms, preoccupied with acts of *synthesis.*

The major synthesis to be accomplished by the baby, as Piaget showed, is to bring together its hands, its eyes, its ears and its mouth. Up until now they have each been used somewhat separately: what was seen was not necessarily reached for; what was in the hand was not necessarily brought to the mouth; what was heard was not turned to. But now all this begins to change, and the baby turns to what it hears; reaches for what it sees; and brings it back to the mouth for further inquiry through gumming, or through the hand actions of hitting, waving, patting or shaking ("blitzing") or through careful visual scrutiny. Mouthing, blitzing, or inspecting that which has been reached for are all manifestations of the new capacity for the synthesis of mouth, hand and eye.

Our task is to examine toys to see to what extent their technology is adapted to these new syntheses in the baby's technology. Once again we find that, at first, no toys may be needed. The baby has, as a part of its own body, four perfectly good objects that meets its needs: its two hands and its two feet. Because these move and are flexible, they satisfy considerable interest and inspection. The hand and feet have fingers and toes that move, and the movement can be controlled by the baby; the fingers can grasp the toes; and the hands and feet can all be brought into the mouth. The baby cannot only control the coordination of these objects, but it can control the objects themselves. There is double feedback both from providing one's own toys and from coordinating one's responses to these toys. This may be perhaps the reason why orthopedists find it very important to provide small babies, who need them, with artificial limbs as early as possible in their life, ideally by two months. They argue that the growth of their intelligence may well be positively assisted by the presence of such limbs, although we have no certainty of this.[11]

From the hands and feet, however—those toys built by nature—we can gauge at least some of the characteristics of the toys appropriate for this age level. They should be *soft and malleable*, so that they cannot hurt or be dangerous to a baby, who will occasionally dash them against its face in its blitzing activity. When the baby falls from a sitting position or rolls over on its back, toys should not hurt (as hands and fingers never do). They should have *multiple parts* (fingers and toes), in order to excite attention and exploration, as they wiggle and combine in their various ways. They should be *mouthable*, so they can be sucked or gummed. They should *taste interesting*, as fingers and toes do. They should react to your reaction to them (*be reactive*), as happens when the baby bites its own fingers.

This latter requirement is only partly fulfillable for toys at present, as children are not wired into their own toys as they are into their own fingers. One can contemplate a time when such biofeedback may be a part of toys. Heart rates or brainwave activity could be geared through telemetric attachment to the body, in order to monitor toy activity by direct feedback. The latter sounds ludicrous, though, seeing that that is, after all, what is already happening between the baby's perception of the toy's physical actions and its intelligence to learn from that perception. Still, in this book, from the hypothetical computer crib-toy of the last chapter to this projected neurological feedback toy, we are engaged in futuristics of some dimension. Whether it is in medical transplant operations, or in drug intake, we have clearly moved into a new era in the human relationship to things, within which there is a greater-than-ever readiness to assimilate into the body, devices of a machine or chemical character that will work directly upon the rest of the organism. Here we comment on this without favor or disfavor, but present it as a reasonable, but somewhat ironical reading of future trends.

There is no sure information about which toys are generally given to or used by infants, in the first year of life. One source is to make use of the market estimates. One market research group (N.P.D.) regularly polls 13,000 homes and makes reports under general categories in the trade journal, *Toy and Hobby World.*[12] Among the best-selling infant toys reported in 1982–*1983 were: Fisher-Price*: Snap-Lock Beads and Rock-a-stack; *Mattel Inc.*: Rail Runner Train; *Playskool Inc.*: Kiddie Links; and *Gabriel*: Busy Poppin' Pals.

Some of these items clearly have a novelty value. For example, the Rail Runner Train that runs around the top of the crib, giving out with a lullaby, is a cute idea and might appeal to the parents but has got nothing very essential to do with infant growth. Similarly the Busy Poppin' Pals with puppets that pop up to different tunes is again a catchy item for parents. The least that can be said for these is that they involve the parents in being interested in what their infants are doing and in what they are paying attention to. In a way it is like building a children's playground. When it first arrives, many children will go there for the novelty of it, but after a while they will spend most of their time where they always have—in the backyard, on the street or in nearby woods. Still, the playground is valuable insofar as it is a public document that perhaps says parents care about their kids. The novelty toy is a similar kind of document. It doesn't do much for infants except that, for a while, it makes the parents concerned for them and perhaps play with them. So it is not completely worthless; nor, however, is it the piece of growth magic that it might first seem. The public virtue of these novelty items as they appear in television advertising is that they make public the fact that large agencies of society consider it worthwhile (and profitable) to make ingenious devices for children. *They publicize the idea that ingenuity in the pursuit of child wisdom is a defensible project*. And if that doesn't seem to be much of an achievement, consider again the quotation from De Mause in Chapter Four about the cruel treatment of children throughout recent history.

The rest of the items on this list are the kind that are useful in the second half of the first year, when infants are more capable of pulling things apart and putting them back together. Our next source of what infants out there might be getting is a count of the toys to be found in the photographs of the Johnson & Johnson *Infant Development Guide* (1978).[13] Table 7.2 has a list of these in three sections, in descending order, according, by our count, to how often they appear in that book. In this table we also include the first-year recommendations from Barbara Kaban's book, *Choosing Toys for Children* (1979).[14] Both sources can be considered as current-day forms of expert recommendation.

Given that we have described a youngster seeing and then reaching out with one hand for a toy, or swinging both hands in towards the toy in order to bring it closer to eye or mouth, perhaps the *ideal toy of this age period should promote that synthesis*. Increasingly, during this period, that toy should make use of the one hand coming in front of the body and meeting another hand. Some toys that make a reasonable job of the task are the *soft ball* and the *plastic ring*, those toys most frequently photographed in the Johnson & Johnson source. Both toys are made so that they can be *grasped by one hand* and when brought to the mid-body line will come in contact with the other hand at almost the same time as with the mouth.

One could argue that with these toys, we have for the first time in this work found principles of toy technology—mainly *circularity*, but also *softness, safety* and *mouthability*—which correspond to the major principle of infant technology: the synthesis of eye, hand and mouth during the age period of three to six months. (In addition, the baby of this age is so physically active, as well as coordinative that, however the toy may be designed for its geometric possibilities, it must also be able to stand the rough blitzing it will get.) One can dream, if one wishes, of some future toy, which, when finding one hand, pulls that hand toward the other and both toward the mouth.

Burton White and his colleague, Barbara Kaban, have written more definitely about toy values than most. In White's *The First Three Years*, and a practical book on the same subject by Kaban entitled *Choosing Toys for Children*, their judgments seem to concur.[15] Neither sees toys as particularly important in child growth during the first six months (perhaps even the first year). However, both see parental play, and doing interesting things together (which can be "play with toys"), and the child having some interesting things to play with (which can be toys) as a part of the child's enjoyment of life and perhaps of its vitality and intelligence.

Their other recommendations, however, make it clear that there is much more in this first year of life than the synthesis of looking, grasping and sucking, which has been the focus here. In short, we should not get too excited about the apparent coordination of toys (balls and circles) with the baby's actions; babies do a lot more than just this. Still, such coordinations of baby and toy technology are neither clearly nor systematically thought through to the extent that is warranted by the technological character of modern civilization. There is an absurd hiatus here.

Some other coordinations are certainly implied by several other toys that White and Kaban recommend. Thus both put their chief toy emphasis on a *stainless steel mirror* for the way in which it evokes a steadily increasing baby response and amusement over this age period and throughout the first year. Here, too, they are probably deriving some of their confidence from the excellent research of Michael Lewis and Jeanne Brooks-Gunn on babies looking in mirrors.[16] These authors discovered that a child, no less than a young puppy, shows great interest in a mirror, reaching and touching what it sees and smiling at it. Their confidence in looking in mirrors as compared to looking at other strange persons, led Lewis to the view that, very early, infants get some sense that what they see in the mirror is like themselves. Their positive response to mirrors seems to imply that very early they also "know" themselves as somehow like that which they see in the mirror, although they may not at first recognize it as themselves. That may not come until toward the end of the first year. It would be remiss not to suggest that from about this age a face-activated mirror might be an interesting contrivance for futuristically inclined toymakers. It is, after all, at about this age (8–12 months) when children enjoy with their parents the game of funny faces so much. Apparently, when they have stabilized their sense of the parental face, they find immensely funny that same parental face shown in incongruous guises. At this time, the game "peek-a-boo," which involves the appearance and disappearance and reappearance of faces, is also a source of interest. It is conceivable, therefore, that a mirror could be contrived so that, when taken in the hand, it would activate the image cast upon it in distorted shapes.

Neither authority, White or Kaban, has much time for *crib gyms*, those devices suspended above the infant to pull or kick or look at. They feel that these simply don't work well unless they are very strongly supported and can stand a great deal of abuse. On the other hand, one can perhaps see these kinds of phenomena as much a part of the Healthy Adult Movement as they are a part of the infant's world. Parents have to persuade themselves that babies are worth living with (and worth loving), and they may do this more easily by assimilating them to the voguish symbols of their own world. There is sometimes a child-centered quality to the advocacies of those who are experts in child-centered matters, and my wife and I have erred in this direction ourselves in our book, *How to Play with Your Children (and When Not To)*, which discusses only that topic and ignores everything else going on in the world. Usually, child-care experts address the anxieties that parents have about the safety, intelligence or achievement of their youngsters. But what may often be as important to parents is simply to see their children as recognizable consumers of the same kinds of things that interest them. Crib gyms have to do with health spas and jogging and other kinds of body maintenance and pride and, for those reasons, may be bought as symbols of the good life, even if their actual direct function for the baby is fairly minimal. We are not writing here in favor of crib gyms in particular, only on behalf of an attempt (that is not exclusively child-centered) to understand the value of toys to those who buy them. They are not just for the children.

White also comments on the infant's increased delight in *tickling* from three to six months. It is not hard to suspect that some day someone will invent, for the infant's amusement, the self-automated, rib-tickler toy with a face. Unfortunately, or fortunately, current evidence indicates that a mechanical tickler is no substitute for the personal qualities of the mother doing her own "coochie, coochie, coo."[17] What one notices in all the experts is a profound ambivalence between, on the one hand, the belief that infant stimulation is important and that environments can be arranged to encourage it, and on the other hand, a profound distrust in the view that particular toys can do the job, or that those who market toys have the right motives with their consumer-oriented products. Developmental experts appear to both advocate toy stimulation and to fear the manipulation of their children by toys alone. We are a generation profoundly concerned both to do what comes naturally and to do what comes artificially.

Putting that aside, the first winners in our present pursuit of a meaningful toy technology are the ball and the ring. They seem particularly adapted to the baby's own new movement syntheses. Though there is clearly much more to be known.

Seven to Twelve Months

In the second half of the first year, the baby's technology completely changes and so, therefore, must our conception of appropriate toys. The baby in this period moves from being able only to sit up—to being able to craw around, climb stairs, to stand up holding onto furniture and in some cases to being able to walk freely. This ability to satisfy curiosity by moving about brings the baby much more directly into contact with the surrounding world of objects. In addition, the baby begins to play reciprocal social games such as peek-a-boo and to show knowledge of its own name and the names of familiar people. The baby babbles and is able to use these babbles in an expressive way to indicate what it wants, and in some cases, by a year, the baby may have its first word-like sounds, "Mama," "Dadda," etc.

But, from our point of view, the important new development is the discovery of objects as *tools* of inquiry. *Homo faber* is born. The child begins to show an interest in the characteristics of the object as such. Objects are dropped and they are thrown. They are banged on surfaces. They are pulled on

Table 7.2. RECOMMENDED TOYS FOR INFANTS SIX TO TWELVE MONTHS

Johnson & Johnson's *Infant Development Guide*

High Frequency	*Moderate Frequency*	*Occasional*
Balls (large and small, suspended)	Cloth or plastic faces	Hammer-blocks
Suspended plastic rings (or rings within rings)	Bells	Tin foil
Containers (plastic or pot)	Mirrors	Paper
Mobiles	Blocks	String
Mirrors	Picture Books	Piano
Water	Soft Toys	Phone
	Rattles	Cars

Barbara Kaban's *Choosing Toys for Children*

Airplane musical mobile
(*Eden*)
Play gym
(*Fisher-Price*)
Baby mirror
(*Childcraft*)
Space ring teethers
Three teethers
(*Creative playthings*)
(*Creative Playthings*)
Cloth blocks
(*Childcraft*)
Stuffed animals
(*Steif*)
Baby clutch ball
(*Creative Playthings*)

strings. Pot lids are taken off and put back on. Things are stood up and then knocked over. One object is put inside another and taken out again, and the process is endlessly repeated. Doors are swung back and forth. Light switches are turned on and off. Books are opened and shut. Doorknobs are turned. Immense attention is given to tiny fragments or very small objects found on the floor.

This is a tool-oriented inquiry into the characteristics of objects, the child finding out what they are by what they can do. It uses them to discover relationships between the objects and everything else around the objects. It uses them as the means to an end. Philosophically, we have the discovery of the difference between the part and the whole, between cause and effect.

Surely, we would expect this to be the period for the emergence of the toy *par excellence*. One notes, for example, that among the best sellers are Fisher-Price's *Snap-Lock Beads* and Playskool's *Kiddie Links*, both of which allow for the discovery of part/whole relationships in the second half of the first year. They have the value that they are easy to grasp, are mouthable (for the first six months), but can be disassembled and occasionally reassembled (for the second half of the first year). In the *Recommended Toys for Infants* list (Table 7.2) there are also *containers* into which infants can endlessly place their blocks, etc., and just as endlessly take them out. Trying out these tools to investigate microcosmic space small enough for the infant to control, or using its own body to get inside macrocosmic space (such as cupboards), is an endless process. One assumes from this activity that a sense of space has to be acquired by actually working it over both in one's hands and with one's body. *Nesting* toys—in which each cup fits into a slightly larger one, which fits into a slightly larger one—are a form of the same container activity, although if they are too small they can drive the parent who is picking them up, to distraction. *Stacking* toys, such as Rock-a-stack, in which donut rings fit over a peg on a base, are used similarly.

Apart from these part/whole toys (nesting, linking, stacking containers) which are certainly focusing correctly on a major characteristic of this age period 6–12 months, we do not seem to have clearly thought through a technological answer to the insatiable curiosity of the locomotive child who is increasingly into everything, under everything, and ultimately climbing onto everything. We have responded to the diversity of tool interest with bric-a-brac objects, such as those in Table 7.2 (bells, Jack-in-the-box, mirrors, cloth, blocks, bath toys, pictures, soft toys, rattles, hammers, tin foil, spoons, kitchenware). Above all, we seem very certain here of the importance of toys being safe—not too sharp, too hard, too small or too breakable—for the very curiosity that drives the child forward also predisposes it to serious accidents. One must baby-proof one's available baby space, by looking for sharp corners on low tables, for light stands that will topple over, for dangerous containers, etc. If this is indeed a tool-focused period, what is required is a technology of tool characteristics (shapes, sizes, weights, depths, hinges, softness, stiffness, textures, colors), tool functions (banging, poking, sucking, dropping, rolling, bouncing, retrieving, sliding) and some more systematic matching of these characteristics and functions with those of infants than has presently been achieved. If we ask, yet another time, is there any evidence that any of this makes any difference to infants, we find once again that the answers, though scarce, tend to be interpreted positively within psychology. Occasionally there are findings in the literature of developmental psychology; for example, one study found that mothers who were supplying their infants with appropriate toys at the age of six months had children whose mental test scores improved between that time and their testing at three years.[18] Specifically, the investigators had to check one of the following categories at six months:

Provision of Appropriate Play Materials

Child has one or more muscle-activity toys or pieces of equipment.
Child has push or pull toy.
Child has stroller or walker, kiddie car, scooter, or tricycle.
Mother provides toys or interesting activities for child during the interview.
Provides learning equipment appropriate to age—mobile table and chairs, high chair, playpen.
Provides learning equipment appropriate to age—cuddly toy or role-playing toy.
Provides eye-hand coordination toys—items to go in and out of receptacle, fit-together toys, beads.
Provides eye-hand coordination toys that permit combinations—stacking or nesting toys, blocks or building toys.
Provides toys for literature and music (books, records, toy musical instruments).

Maternal Involvement with Child

Mother tends to keep child within visual range and to look at child often.
Mother "talks" to child while doing her work.
Mother consciously encourages developmental advance.
Mother invests "maturing" toys with value via her attention.
Mother structures child's play periods.
Mother provides toys that challenge child to develop new skills.

Of course one can't really be sure that it is the toys alone that are doing the job. These kinds of sensible provisions by the "good" mothers—or alternatively some worse behavior by the "poor" mothers, who do not make these provisions—could have led to the mild positive correlation recorded in the study. Alternatively, because many studies have found that children do better who have parents who stimulate, encourage and seek to accelerate them, we suggest that it may not be specifically the toys, so much as the general home atmosphere of which they are a part, that makes for the improvement. We continue, therefore, to be skeptical about the conclusions drawn from this study.

Conclusion

We have focused here on the relationship between the (3–6 months) *integrative acts* of hand, eye and mouth, and toys such as rings and balls that accommodate that function; and also on the (7–12 months) *instrumental tool* interests accommodated by containers and nesting, stacking and linking toys. But there is much more both in the baby's repertoire and in the toys available that no one has yet dealt with in such systematic terms. As mentioned, within social science, Richard Chase and Burton White are the real pioneers in this attempt, being both knowledgeable about the literature and alert to toy technology.

In infant development, parental stimulation of and reaction to the child is probably of paramount importance. Besides having other uses, some toys may maintain a child's level of curiosity and put boredom to flight; some toys may consolidate the excitement of action, and others, the excitement of tools. What most often occurs, however, is that the toys are just one part of a general way in which parents communicate to their children their life values. For example, the parents may be lively people and they like their children to have a lively time also, so their gifts of toys are like their gifts of their own liveliness. Alternatively, parents who favor their own privacy expect their children to find their own preoccupations and so they use toys to feed such solitary expectations. Or parents might enjoy manifestations of their wealth, not only in what they buy for themselves but what they buy for their children. Or, parents who don't like toys, but favor creative activities, give their children only those toys that seem to them not to be merely mechanical but to feed self-initiative and creativity. There are many possible ways in which toys are forms of family communication, and whether toys do indeed contribute to a healthy attitude toward object discovery and understanding will inevitably depend on how they fit into such family patterns. There is nothing very simple about this, however, as toys given for one intention by the parents can be taken up by the children for quite another.

And beyond all this also is the weightier matter of cultural relationships between tools and toys, and whether the first toys, as the child's first tools, originate for the child some of its subsequent attitudes to both tools and toys. (The history of invention is sometimes that of toying with things that, through invention, turn into tools, and sometimes that of taking one's tools and seeking recreative ways of making them into toys.) There is an intimate relationship between both, in human and personal history, and it probably begins in the second half of the first year of life.[19] To claim as we have, in this chapter, that the first toys are really the infant's first tools, is perhaps to say something deserving much more attention than it has yet received. It has, after all, been our general contention that the technology of toys is lagging behind our technology of everything else. Toys which were once associated with the technological mastery of science have been reduced to matters of little consequence by their association with children and with their play.

On the other hand, what we have presented in these three chapters suggests that there may be perhaps a much mightier role for toys than we have had data for here. It is not impossible that constant play with toys as real or imagined self-moving machines provides the players with both a model and a validation for their belief in themselves as self-moving machines, as autonomous beings. The importance of the toy may be mainly the habit of control that it imparts. The long absorption of the player with these miniature worlds may indeed provide validation for a belief in one's own inner powers. In these terms the external toy is, perhaps, the key to the inner character.

PART
III
The Toy as Education

CHAPTER 8

The Toy as Achievement

It is reasonable to assume that both bonding and solitariness are part of the much larger modern cultural concern for progress. It is progress that has put the family in jeopardy and it is progress that has required the development of solitary genius. In modern society progress comes in terms of *scientific* progress, the staggering improvements in every kind of technology and way of living and in our relative control over the earth and the universe; it comes also in terms of *material* progress, the enormous accumulation of industry, capital and consumer goods.[1] Besides scientific and material progress we have developed notions of "progressive" historical change in societies (Marx) and notions of animal and human evolution (Darwin). And, more importantly, we have come to think of individual achievement as the normal way of things in modern life. We are believers, in short, in the hero myth. We tell our children stories in which the major characters come out winners. They overcome difficulties, nullify threats, marry princesses or princes and live happily ever after. Most of us, in our personal lives, carry in our heads a set of such stories. The earliest ones develop about the age of seven years and have to do with fantasy images of what we will do when we grow up (be firemen, policemen, businesswomen, actresses) or whom we will marry. By eleven years we are dreaming of being world champion marathon runners, or scientists or doctors. Later we tell ourselves stories in our heads about the characteristics of those we will marry, the colleges we will attend, the individual occupational progress we will make. And then finally, when we write our autobiographies, we remake the story of the lives we actually lived. And if we are unlucky, our own children make it over again after we are dead.

The Idea of Progress

All these stories of progress have led to the development of a quasi-natural-science known as "Developmental Psychology," which is concerned with the story of human development, the description and prediction of how children, adolescents and adults develop. This science has also become a major source of modern ideas, not just of how people do develop but of how people *should* develop. It is seldom possible to dissociate the "science" of what happens in human affairs from the cultural concern with what should happen. The results of such human science are quickly turned into advocacies in popular journals and newspapers. And this work of translation is not entirely due to journalists. It is very clear in the writings of developmental psychologists that they themselves take for granted that it is better to reach the end of their story, than it is to stay at the beginning. Not one of them advocates keeping children in their "infantile" state of mind. All of them want to hurry children forward into the Kingdom.

And the Kingdom turns out to be that adult state where one is capable of abstract reasoning, or is able to be morally compassionate, or can work capably, or can be an adequate sexual being, or can be capable of intimacy, can be procreative, can have integrity, or can even be one who is self-actualized. These are the end-state terms from several of the more prominent theories of child development. There is no doubt in any of them that we are better off if we reach these end states than if we stay in any of the earlier states.

Children have the misfortune of not yet being capable of these more complex states of mind and soul. In the past century it used to be thought that "primitives" and, until about 1970, women, too, were incapable of these higher states.[2] In short, all of the theories and most of developmental psychology is part of (not separate from) the hero myth that dominates modern society and that seeks to push children forward through their various stages, so that they overcome the age-level hurdles and go onward to finer things. The psychology of how children develop is written within this set of very modern values.

Throughout history and many areas of the Third World today there have been many societies that did not have our idea of progress. As a result, although we like to visit them and watch them dancing and singing and happy in their own village life, it is very hard for us to see much value in them. And yet some of these societies have apparently been well adapted to life on this planet, because they have lived in the same way for a much longer time than has our society. While we are on the verge of bringing the world to extinction, they have lasted for a thousand years (the Hopi Indians), or even 50,000 years (the Australian aborigines) much as they were until quite recently. As most of the hunter/gatherer or early agricultural societies left have been very negatively affected by our own despoilation of their environments, it is not often easy to see that they have much to tell us. There are occasionally, however, societies that have been studied pretty much in the natural conditions in which their members have lived by choice for long periods of time, and it is in these societies that we often find surprising forms of adaptation and a surprisingly good life, even by modern standards. For example the !Kung of the northwestern Kalahari Desert, an area in southern Africa, live in bands of about 25 people and follow traditional hunting and gathering patterns. The women collect plants and the men hunt. Plant foods provide the bulk of calories and protein. In order to survive, all persons work about two and a half days a week, so the week is one-third work, one-third visiting relatives and friends and one-third entertaining visitors. Their entertainment—or culture-building, as they call it—includes songs, dancing and storytelling. There is much more leisure in their lives than in ours. While in so many ways we feel ourselves to be superior and our ways to be right, it is possible to believe that we might be mistaken.

On the other hand, our own idea of progress, which seeks to promote the greatest growth in every living person, has in its favor, at least theoretically, that every talent we have should be maximized; that every capacity for genius should be realized; that, as a result of this high degree of differentiation and specialization in all members of society, maximum efficiency and intelligence should follow. That is our ideal scheme of things.

But the cost of this, as we have mentioned, is an increasing alienation from our fellows, a concern for the bonding which is no longer there and the increasing solitariness of our children as they are prepared throughout their young lives for the highly individualized kinds of achievement that will be required of them.

Putting together, then, our modern idea that every child should progress to the highest possible level (which also comes to mean as fast as possible), with the other idea that in the past some societies were quite as well adapted as ourselves with much less strain, we are forced to look at childhood through at least two different sets of glasses and ask: 1) how do toys help the child grow, and 2) what do toys contribute to the child's sense of his/her own good life, own exhilaration, own leisure.

In the present chapter we ask only the first of these questions: How did the toys come to be associated with human progress and what are the implications of such a view?—always recognizing of course that toys are neither solely educational nor solely for entertainment.

Toys as Progress

It was only gradually in the 1600s and then fully in the 1700s that some educators began to recognize children's play as something that could be used in their education.[3] Up until that time play was a communal habit in which children and adults most often participated on festival occasions, sometimes in a riotous and licentious fashion. As attitudes to children changed, so did attitudes to their play. As they were thought of less as given to depravity and in need of constant punishment, and more as malleable and subject to different kinds of environmental influence, so the toy came to be looked upon as a device for their education. It needs to be stressed that, until this time, the word "toy" itself stood for any petty commodity, a thing of no great value; it had nothing specially to do with children, but stood for inexpensive objects or trinkets. The modern word "toy" continues to connote some of that traditional flavor of unimportance and triviality.

Englishman John Locke is usually given chief credit for introducing the notion that toys are not merely anyone's baubles, but should be thought of as objects given to children for educational purposes. Play and playthings were seen by the English philosopher as a contribution to the educational process, where most other writers had seen them as a hindrance. Locke was responsible for popularizing his own letter blocks, which came to be known as "Locke's blocks," as a means for teaching the alphabet. Part of Locke's concern with these toys, however, was to get children off the street, where he felt the association with rudeness and vice was no contribution to their proper growth. He was speaking for an emerging middle class which sought to separate itself from earlier more collective and lowly ways, and which desired the means through which to enhance or preserve, in its children, its own economic and social attainments. Educational toys, in these terms, became an incentive to keep children indoors, where they could be governed by tutors rather than by their rough brethren on the streets. In these social circumstances those who wrote about children's play wrote increasingly about the more domesticated versions that were possible under the supervision and guidance of adults. The rough, cruel and brutal play of the common world gradually dropped from sight in the educational and psychological works of the centuries that followed Locke's advocacy. Play was *not* seen by Locke as a way in which children would learn from each other. He saw it as a tool to be used by the child to learn solitarily or to learn under a teacher's supervision. The first educational toys thus have this narrowly didactic and solitarily supervised intention.

By the end of the 1700s there was a virtual array of educational "toys" and "games" that used packs of cards to teach geography, history, spelling and astronomy. Board games were transformed to become games about morality. Jigsaws were invented in 1760 to inculcate calculation, patience and solitary concentration. The manufacturers of the day advertised their wares as "improving toys" which combined "entertainment, amusement and instruction." By the beginning of the nineteenth century there developed the beginnings of an international toy market, whose manufacturers were located mainly in England and Germany. As John Brewer, the Yale historian, says: "The purveyors of such toys were selling much more than attractive objects; they were marketing a particular social morality—one that stressed industry, probity and *individual* endeavor."

Toys also became personal possessions and the first form of private property for children. In the past playthings, where they existed, had been shared collectively by the family. As Brewer says: "The birth of the toy indicates the point at which the individualistic ethic came to dominate the social thinking of the middle and upper classes." Educational toys were to be the toys of solitariness, a marked shift from all prior usages of miniature objects in magic and in festivals throughout history as well as from all prior forms of play, which had been typically communal in character. Children were coming to be recognized as *individuals*.

The last half of the eighteenth century in England also saw the origins of children's literature, as well as of a more general usage of village schools. Although the use of the word *toy* suggests that play objects were not as yet given high value, from a perspective of two hundred years later it can be seen that the rise of childhood as a distinct life stage in modern consciousness was correlated both with the rise of the school, of the child's book and of the child's toy.

In addition, in giving toys to children for their own possession (whether for education or amusement; the motives were mixed from the beginning) a great shift in the attitude toward child discipline was signaled—a shift from a discipline thought largely as breaking the will and curing the depravity, to a notion of control through gifts and rewards. Chapter Two indicated the way in which Christmas gifts currently enter into such a pattern of reward, control and obligation. The expensive nature of today's toys compared with the baubles of earlier ages, is also, in a strange way, a measure of the value we currently claim to place on children. One sees regular estimates of how many hundreds of thousands of dollars it takes nowadays to rear a child from birth through college years. The expensive modern toy is keeping pace with this increase in a child's economic value or liability.

In the nineteenth century these toys—which, in the prior century, helped to mark off the private home from an earlier, more public life in extended families—were adopted for general educational use in schools. This occurred largely in kindergartens or nursery schools and was largely due to the profound influence of the German educator, Frederich Froebel. What Descartes had seen connecting the toy and the universe, Froebel now saw connecting the toy and the evolution of the individual soul. Personal development could come about only, he said, by expression through appropriate external objects or forms. For the child to understand the unity of his/her soul for example, with all life, s/he needed to have play objects that could do this for him/her. To this end Froebel designed objects that, he said, were gifts from God (not Santa Claus). The play activities, which he also invented, to accompany those objects were termed by him "divine occupations." Although some forms of play and games in tribal and ancient societies had also been held to be sacred, during the earlier industrial era at least play was given no such connotation. Froebel's was a remarkable renewal of that ancient sacred idea, but now in an entirely individualistic and developmental context, rather than in association with collective tribal rites.[4]

The first toy Froebel developed was a ball. This was meant to symbolize the all-embracing unity of the divinity. After comprehending unity, the child must come to understand diversity, and to this end, for his second toy, he received three objects—a cube, a sphere and a cylinder. Having been given unity and diversity, he could then move toward the comprehension of a reconciliation of objects. The cylinder, having the character of both cube and sphere, could link the latter together in reconciliation. The next gifts were blocks, with which children were to make life forms, such as houses and churches; forms of knowledge (geometric shapes); and forms of beauty (designs).

There is, of course, much more to Froebel's story of a child's evolution. What we note here mainly is that the toy is a long way from being a mere bauble in this philosophy. The apotheosis of the toy is underway.

In the twentieth century a similar notion of the particular toy having quite specific educational effects was taken up by Maria Montessori, although her "gifts" were neither from God nor were they to induce some profound intuition of the universe. Her aim was the more humble desire to give sensory training to the children of working-class mothers. She shared the generally accepted notion, at the turn of the century, that the way to evolution was from the lower sensory faculties to the higher, more intellectual ones. The children were allowed to practice in a prescribed manner with the materials in their variously graded exercises in order to learn about color, form, shape and texture. There were, e.g., frames on which they could practice buttoning, lacing and tying. The children were not, however, allowed to "play" with them in their own fashion.

In general, however, in the twentieth century, psychologists and educators (e.g., John Dewey) have not sought to tie the characteristics of specific toys or educational materials to specific responses on the part of the children. They have, rather, tended to emphasize the internal characteristics of children (their needs, anxieties, cognitions, states of arousal) and to see the children as using whatever objects were at hand in order to pursue and develop their own understandings.

Thus, instead of the quasi-"sacred" gifts of Froebel or Montessori locked away except when dispensed under careful teacher instruction, by the 1920s one characteristically found free access in schools to many different kinds of blocks, along with equipment for climbing and lifting, housekeeping equipment, sandboxes, work benches, toy animals, wheel toys, easels for painting, manipulative peg boards and puzzles. Even the recent theory that has paid the most scientific attention to the effects of specific playthings on children is stated in only very general terms. This is the *arousal theory*, which says that children are more likely to play with objects when those objects are novel or complex, and responsive to the child's own actions with them and permit them to solve problems.[5]

Some advocates, however, still claim specific effects for specific toys. Thus, we saw in an earlier chapter that, according to some theorists, the first blanket or soft toy is critical to the infant's transition from mother to the outside world. Other theorists, such as the Russian psychologist, Lev Semenovich Vygotsky, have made the toys of the second year critical in the child's first use of symbols, suggesting that the object itself, which stands for something else (as a doll does for a baby), is the toddler's first material symbol. Later, when the toddler can say "doll," it will have a verbal symbol, but first it needs these toys as real material things that refer to other things and do the symbolic work for the toddler.[6] Probably the best-known scholar writing on children's play in this century has been Erik Erikson. In his book, *Toys and Reasons*, he suggests that the toys of early childhood teach the child what is workable in the "thing" structure of the world, what is resistant and what will break, as well as show the child what things can be made to mean.[7]

Most play theorists, however, while assuming that objects are critical to the child's development in play, have not made much reference to them except in even more highly generalized ways. They have, nevertheless, all been very positive about play. There is no major play theorist of this century that does not make play out to be a positive force in child growth and child achievement. Whether they have said that play is the management of energy, a preparation for adult life, a working-through of primitive impulses, a mastery of anxiety, a compensation for other frustrations, a consolidation of intellectual operations, a form of creativity or a way of learning the difference between fact and fiction, they have not suggested that it is useless or wasteful or evil, as people often did in prior centuries.

It is clearly a fundamental modern cultural belief that play and, to a lesser extent, educational playthings and toys are a fundamental part of a child's growth. No one ever pays much attention to the reasons why, earlier in Western civilization, people did not believe this; nor do they pay attention to the well-known fact that play can sometimes be dysfunctional.[8] Both children and adults often get hurt while at play. They more often get hurt at play than doing ordinary things. Nor does anyone pay much attention to the fact that there is very little scientific evidence in favor of the view that play has a positive outcome. We simply believe it to be true. This is a century in which we have increasingly idealized our children, and have idealized play right along with them. To say there is little evidence does not mean that the assertion may not be true; it only means that our basis for believing in the relationship between play (or toys) and achievement lies more in our own cultural desires, than in any well-established collection of scholarly information. Children's play and toys have achieved a fairly sacred association in the modern mind. It is helpful to remember that the same veneration exists also for adult team sports in the modern world. Neither were of any great consequence, to education or society, at the turn of the century, but now are the ever-present center of national and international life. In a sense, sports and child's play complement each other in our current mythos. Team sports have been seen as a way of controlling masses of people and of introducing minorities into the mainstream of American life. Similarly the "play way" has been seen as a useful device for incorporating the less educable into the main stream of early education.[9]

Probably the best evidence for the view that play does indeed contribute to mental health in this society is the persistence of that belief among those who work in children's play therapy.[10] For some fifty years now a variety of mental health practitioners have been writing articles claiming the beneficial effects of play upon many of kinds of disturbed children. Their testaments are probably worth something, though seldom to be called "research" in any strict sense. The main point is that we have little compelling evidence of a connection between toys, all by themselves, and achievement, though such a connection is quite possible. What is more obvious is that, since the appearance of toys in the seventeenth century, we have steadily and progressively developed a belief that there is a connection between toys and achievement. It is a belief that has flourished more strongly with regard to the toys of the schoolroom (the so-called educational toys) than to the toys of the marketplace. But, increasingly in this century the distinction has been blurred as psychologists have emphasized the "information" potential of all objects and as toy manufacturers have continued, more effectively, their historical efforts to blot out the distinction between education and entertainment. So now it is taken for granted that most toys are educational in some respects. Many parents, however, are careful to keep the distinction alive between those toys they regard as mere baubles and those they regard as serving a child's achievement.

Our informants report how often their parents would favor some toys over others on the grounds that they were educational. Thus *Etch-a-sketch* might be favored because it supposedly developed hand and eye co-ordination. Or a *Felt Board*, along with shapes and animals and letters, would be approved because of its clear educational outcomes. Then there were the sets of *Cards* with a picture of a State on one side and the state capitol on the other. Or there was the *Fraction Pie* divided into fractions and by a spin of the wheel you could take turns and get a fraction which you then must add to your other segments to see who was the first to get a whole pie. Or as one informant says: "The toys that were chosen for me had a definite theme: blocks, *Spirograph*, *Lego*, abacus, Fisher-Price. In short, a large amount of solitary educational toys with no sexist connotations." Then for developing the mind there was *Stratego*, *Mastermind* and the *Game of Life*, or even *Monopoly*, all of which were highly approved of in some families. "We didn't like toys that were commercial plastic fads. In general the big expensive plastic stuff was not in my family," says another informant.

Toys as Regression

One of the problems with some toys, however, is that for, whatever reason they are given, whether for consolation or achievement, children are sometimes unwilling to outgrow them. It is the intrinsic problem with any toy, that it is more suitable for some ages than others, and, as such, can become a cul-de-sac against further achievement. The parent who has willingly given the toy at one stage, may be reluctant to see it continue in use into another. Perhaps the continuing "triviality" of the toy in modern society is, in part, due to its containing this paradox of progression-regression. No toy has more difficulty in this respect than the soft toy mentioned earlier. It is an object that makes the transition easier from babyhood to early childhood, so it is said; yet, later on, it is a mark of "childishness." In part, this problem has been solved by taking the soft toys—lightheartedly—off to college. Transitional objects, by becoming permanent possessions, have converted these personal regressions into culturally accepted adult collections.

Informants speak often of the battle with their parents as they got older to give up their pacifier, their bottle, their blanket or their soft toy. Sometimes the parents gradually cut pieces of the blanket to gradually reduce its size and have it inevitably disappear through attrition. Sometimes they persuaded the child to give away one, a few, or more of their soft toys to other less fortunate children. Still, even then, older children would hang on to their close soft toy companions. "Even though I knew I was being a baby on those occasions that I was upset, I would bring my bear to bed with me, returning to an infantile state." Sometimes the disappearance was unheralded: "When I picture my teddy bear sitting in a garbage can somewhere abandoned and forlorn, I still get a little sad."

Conclusion

The proposition we have developed in this chapter is that as childhood developed as a separate cultural entity several centuries ago and was related to school attendance and a newly developing children's literature, toys became the important personal possessions of children and signifiers of this newly defined age group. Further, as the value of childhood develops, so does the value of these toy possessions. Again, as achievement and success become increasingly important for children, so toys themselves became increasingly associated with such achievement and success. Toys now signify that the child is an owner, a consumer and an achiever. Remembering that we have already made the case that the toy-owning child is bonded into his family as a solitary performer, we now make the case that it is through toy possessions that the child is also an achieving performer.

Still, we have another paradox here. A toy is seen both as a bauble and as an intellectual machine. In effect, the parents are saying to the child, "I give you this toy for you to play with and *not to take too seriously*; but now go away and play with it by yourself and *learn something serious* from it."

CHAPTER 9

The Toy as the Child's Work: The First Year

One of the clichés of this century is that play is the child's work. This shibboleth has permitted some achievement-oriented parents, teachers and researchers to "use" play as a means for education; or to justify it as a useful kind of activity. Others with perhaps a keener and narrower eye for the nature of achievement have just as sternly denied that play has anything to do with learning. So we have the dilemma of being unsure whether play is a form of problem-solving or creative activity, as the first group opines, or whether it is a form of time-wasting hilarity and nonsense, as the latter group thinks. Similarly we have the problem of knowing whether the use of toys is educational or a waste of time.

This controversy is compounded by the guilt that the first group feels for taking from children their "birthright of play" and the intolerance that the second group feels for not getting on with the job of learning. Most psychological "experts" seem to belong to the former group. Yet to go on associating play with work in their idealizing way, as they do, appears to confuse issues rather than to clarify them.

The Acquisition of Play

The idea that play is the child's work confuses a number of different activities which we need to distinguish, in order to make more appropriate provisions for children. For example, in an otherwise quite excellent book on your *Toddler* (1980), Rubin, Fisher and Doering write that:

> Play includes exploring the world with all senses: practising physical skills; manipulating objects and mastering the challenges they can present experimenting with new materials, reading books and listening to stories, making music, dancing, roughousing, helping parents with household chores—in short, just about everything your toddler does.

Clearly this is a group of such divergent activities, we must wonder how it can serve our understanding of childhood by jumbling them all together under the hearing of play.[1]

Yet another major source for the present work, Burton White solves the problem by never mentioning play in any systematic way.[2] Instead, he discusses exploration, on the one hand, and mastery (the practicing of skills), on the other. Nor does Robert McCall in his classic monograph, *Exploratory Manipulation and Play in the Human Infant*, find it possible to easily distinguish the two.[3] It was only 30 years ago that an outstanding psychologist, writing on play, suggested that because it was indefinable we should leave it out of our psychological research altogether.[4] What was happening was in part legitimately due to the great difficulty we have in making distinctions within the general activity of very young children. What you and I might think should be kept conceptually distinct in science—play from work, exploration from play, music from play, reading from play, etc.—are not always so easy to separate in the free-flowing activity of young children.

But the lack of willingness to "properly" distinguish these activities is to carry over that neglect, and even rejection, of play, which has characterized Western civilization. The paradox of such neglect continuing on a scholarly level (while being negated at the adult sports level in international Olympics) is worth some thought. As the earlier chapters have described in some detail many characteristics of the baby's first year, this is an appropriate place to begin such an analysis. In general, I take the position that in the first two years of life, infants and toddlers do not play very much by themselves at all.[5] Instead, throughout that period they *learn how to play* from their parents and older siblings. In these terms, play is like language, which also takes about two years for the child to learn with any stumbling degree of usefulness. As play is an older kind of language, an archaic form of communication used even by animals (dogs and cats know the difference between playing and fighting), it is probable on the face of things that play is learned before speaking is learned. Speaking proceeds from increasing mastery over its sound elements in the first year (its phonology), and by one year of age young children often sound as if they are speaking, when in fact they are not. I remember a 12-month-old daughter turning the pages of a book and apparently "reading" it. When I got closer, her reading turned out to be babbling but with the proper reading intonations. By the end of the first year, the child is able to use intonation to indicate what expression is desired (e.g., a demand; a question; excitement). And in the second year there is an increasing change in word structure from one-word to two-word expressions. The two-word expressions are often like miniature sentences (e.g., Mommy go, Daddy go), so they have a structure of a kind. By the end of the second year the child can communicate meaning with some adequacy and much simplicity. It is "speaking." By about four years of age its speech will not be much worse than yours or mine.

There is good reason to believe that learning how to play is equally gradual and industrious. What we need to discuss is the accumulation of the features of play throughout these first two years. Instead of thinking of the child as, at one stage, *not* a player, and then, at another stage, a player, it makes sense to attempt to show the gradual acquisition of play features from a less adequate to a more adequate kind. This is similar to assuming that in language, from the very earliest months, the child is able to communicate, to some extent, its feelings to parents, even though the full flower of speech may take several years to bloom. Thus, its crying communicates trouble, and its laughter communicates happiness. It is, in this sense, that we should look for the earliest elements that are a part of the system of communication called "play."

The Play of Parents

The most apparent forms of play that occur early in the child's life are those staged by the parents. It is the parents who imitate the baby; speak to the baby in funny voices (technically called "motherese") make funny faces at the baby; rub their own faces in the baby's face; pedal the baby's legs; tickle the baby; throw the baby in the air; bounce it on their knees; play drums, slapping on its little bottom; dance with the baby; rough and tumble with the baby; sing to the baby, chew its fingers, and let their own fingers be chewed by the baby. If we ask them what they are doing, they will most often say they are "playing with the baby." And, by and large, we would agree with them. They are in their own private world with the baby, doing things they don't usually do in a feckless way; and yet, within the tight container of safety that is assured, they can vary their behavior in any way they wish, to produce better effects of delight or smiles or laughter in the baby and in themselves. Because the baby is responsive, there is a sense that they are playing together; at least, that's what the adult feels. And even if the infant is not very responsive, it is usually responsive enough to be a good "toy" for the adult and to participate without crying. But is the baby playing? By about two months most babies learn to smile to the parent's smile or doing surprising things and, by about four months, laugh at the same. The baby's responsiveness by smiling at first and then by laughing gives us the sense that they are participating. In these months also the baby begins to be able to repeat back to us what we have imitated in it. So it burbles with its lips; we copy the burble; it sees us, looks surprised the first time, smiles the next time and then repeats its own burble with a following smile. A *communication of facial expressions has occurred*, a communication which does not signal anything else but itself. Now is this play? To that, we might respond with the question as to whether babbling is speech. It is not developed speech; in fact, even those who will not speak without a great amount of help—deaf children—also babble in the beginning.

So it is neither play, nor *not* play. It might be called 'proto' play. A play context, or theater, is set up by the parents, and the baby, unwitting of all this, is invited onto the stage to be used partly as a stooge by the parent as director. But the baby, as a happy stooge, is well treated while there and seems to enjoy the situation. The baby is *mimicking*, smiling and laughing in response to the right cues, so has gradually learned how to laugh along with Mommy at the right times. The baby is acquiring some of the external forms of play, and yet, like most forms of human learning, this is occurring "on the outside" before it occurs "on the inside." It is one thing to be a play participant and quite another to be a playmaster. But the infant, put into this context, is going to pick up many other cues about this particular human event. Specifically, this human event, play, is associated with exaggerated or incongruous sounds by the parents (as compared with ordinary speech); they whisper, use strange voices, pant, coo, sing, etc. They exaggerate facial expressions, raise eyebrows and open their mouths wide. They go over the same routines again and again ("This Little Piggy"; "Peek-a-boo"). In the beginning, the child may be upset by these and simply watch, but by dint of *repetition*, the child begins to anticipate their direction, and its face registers increasing delight as the routine moves toward a *climax*. Climaxes seem critical to most social play. They are the point where the feelings of the players are most highly excited, as in the hand game, "This Little Piggy Went to Market," in which, at the climax, the infant is tickled in the tummy or under the arm. Once such routines establish themselves, the adult, in order to preserve and enhance the baby's attention is driven into *various novelties and variations.* Through all of this, the baby becomes increasingly anticipative, bumping up and down on the knee to instigate a knee game, or lifting its hands to signal the hand game, "Pat-a-cake." But these participations are minimal as compared with the total character of the routine.

"Peek-a-boo" is the only infant game to be studied with some science (by Jerome Bruner and Virginia Sherwood). It was introduced to the child at nine months, but not fully mastered by the child, as director of the game, until about fifteen months.[6] One could not be sure that she was fully a player until that later point in time. In the meantime, the baby had first experienced a game controlled by the mother who put a diaper over the baby's face or her own, and then, while talking to the baby to maintain contact, quickly pulled the diaper off. At the youngest age the baby participated in a climax by saying "Boo" or "Aaah" or by laughing when the cloth was pulled off her face. After the age of 12 months the baby herself began to pull the cloth off either her own or her mother's face. By the fifteenth month the child, who could now walk, initiated her own performance of the game by first getting the parents attention, then disappearing and reappearing around doorways, behind chairs, or from under tables and saying "Boo" on reappearing. So here we have a process lasting about six months, from the time the infant was first "in" the game until the time it could initiate and sustain the game by itself. And these were the most suitable circumstances for playing, because the parents intensively taught the child how to play the game. However, the child is not going to be very capable of learning and reproducing most of this quite complex play by itself, at least in the first year of life.

Solitary Play

So the question arises whether children ever do play by themselves in the first year of life. Is there such a thing as solitary play, or must that come only after the play event has been learned in social activity with the parents? After all, there are very few reports of animal play that are not social. In fact, it is usually hard to be certain that human play *is* play unless we see the social context. It is because two or more are participating in a special and strange way, or because their faces are smiling, that we usually know they are at play. We say that we can tell they are at play, because they have given the proper play signals, such as funny faces, smiles, or statements such as "You're it," and "Tennis, anyone?".

As Piaget's work on solitary play in the first year is still the most comprehensive, although written over 30 years ago, it seems worthwhile to quote him extensively in order to try to discover for ourselves when we can say that our baby is at play. In his work, *The Origins of Intelligence in Children*, (tr. 1952), he gave the examples of what he sees as the earliest infant play. Thus, Laurent, at one month, sixteen days, "plays with his tongue, sometimes licking his lower lip, sometimes by sliding his tongue between his lips and gums. The following day this behavior is frequently repeated and always with the same *expression of satisfaction* [italics author's]." At two months, eighteen days, "Laurent plays with his saliva, letting it accumulate within his own half open lips and then abruptly swallowing it. ... these exercises become increasingly varied."

With these two observations, we already encounter a difficulty. Are we dealing here with play? Is a smile of satisfaction sufficent to announce an activity as play, or is that just as likely to be a smile of triumph in one's own progress, which need not be a playful action? Or perhaps it is just a smile. Clearly the matter is ambiguous. Similarly, does variation in activity mean it must be playful? With Piaget's examples in *Play Dreams and Imitation in Childhood* (tr. 1951), about the play of his own children, male and female, the examples seem to be clearer.

At two months, twenty-two days, his son "T" "adopted the habit of throwing his head back to look at familiar things from this new position. By the 23rd or 24th day he seemed to repeat this movement with *ever-increasing enjoyment and ever decreasing interest in the external results*; he brought his head back to the upright position and then threw it back again time after time *laughing loudly* [italics author's]." At three months, he "played with his voice, not only through interest in the sound but for 'functional pleasure,' laughing at his own power."

At three months his daughter "J" also

> discovered that by kicking her legs she could make the objects on the top of her cot move about. During the first month she followed this up quite seriously, making them move but with an appearance of intense interest. Subsequently, however, (four months to eight months) she never indulged in this activity without a show of great power and joy.

At seven months, thirteen days, "T",

> after learning to remove an obstacle to gain his objective, . . . began to enjoy this kind of exercise. When several times in succession I put my hand or a piece of cardboard between him and the toy he desired, he reached the stage of momentarily forgetting the toy and pushed aside the obstacle, bursting into *laughter* [italics author's]. What had been intelligent adaptation had thus become play, through transfer of interest to the action itself, regardless of its aim.

At ten months, three days, "J"

> put her nose close to her mother's cheek and then pressed it against it, which forced her to breathe much more loudly. This phenomenon at once interested her, but instead of merely repeating it or *varying* it so as to investigate it, she quickly *complicated it* for the fun of it; she drew back an inch or two, screwed up her nose, sniffed and breathed out alternately very hard (as if she was blowing her nose), then again thrust her nose against her mother's cheek, laughing heartily. These actions were repeated at least once a day for a month, as a *ritual*.

It is clear from these examples that Piaget tends to think of something as play if the mood is one of levity, if there is laughter or there is a showing of power and joy. If there is anything to his very first examples of saliva activity and tongue activity, perhaps it lies in some quality of *relaxation* that he is observing. A skeptic might say of all this, however, that he is simply observing pleasure, or laughter or relaxation. Why should these be called play? Piaget's best defense appears to be his contention that he has observed the child cease intelligent adaptation and transfer its interest to action for its own sake regardless of aim. For over a century now, play theorists have been arguing that this kind of switch of attention to "means behavior" over "goal-oriented" behavior is what characterizes play. What we need to note is how difficult it is to be certain of what we are observing. But on the basis of Piaget's observations and our own about social play, I will venture to suggest that what is most central to this early playfulness of parent and infant is both incongruity and laughter. Normally incongruities or novelties can excite either attention or fear, but they are not playful in themselves. But when a parent regularly associates some of his/her own incongruities with laughter, the child learns in due course to respond with laughter also, and it is these events that we come to call playful events. We note how often laughter is a key to Piaget's examples.

But what we have also noted is that these incongruities are bred out of familiar ground. We can laugh as the mother's funny face because we know her ordinary face so well. We can laugh at the father's silliness when he appears to fall over, because we are so used to taking him serious as standing upright. Incongruity requires a prior period of familiar congruity. We must know the serious or the sublime before we can enjoy the unserious or ridiculous. It is this contrast that seems to me to be at the heart of play. And the best way to provide a metaphor for this approach in a quick and economical way is to call it a *bathos* theory of play.[7] Bathos is a literary figure or trope standing for the reduction of the exalted to the trite, the sublime to the ridiculous. In funny faces we exchange our exalted parental faces (at least in a baby's eyes) for nonsense faces with much expression of feeling and laughter.

Defining Play

More technically I would like to define play in terms of the following propositions. I am forced to these in order to make clear why I am saying that most of the time infants are *not* playing, but are doing other things.

First, *play is a primitive form of communication.* It is primitive because it occurs in animals as well as in humans. In both it has to be learned from other members of the group. Animals or humans isolated from birth do not learn to play. Like language it takes time to learn. It is a "natural" function like eating or sex and is neither good nor bad in its own right, though apparently satisfying to the participants. It requires "signals" from the members of the group in order to know that this is the kind of communication that they have in mind. Dogs wag tails, primates have a smile face and cluck in their throats, humans exaggerate and distort their usual actions. They make funny noises, they make absurd mimicry, their eyes gleam, they nudge and tickle, they laugh, they jump up and down, they gambol and they "galumph".

Second, *play is a primitive form of expression*. Play is not solely a form of communication. It has as well its own laws of expression, the most important of which is that it represents itself in highly schematic ways. Play is more akin to caricature or pantomime than it is to ordinary theatre. The exaggerations, iconic sounds, mimicry, gamboling and galumphing of play are not just signals of the message "this is play" they are characteristic of play's own actions and play's own structure. Children playing "houses" do not do so in detailed and realistic way; they do it with quick gestures, covering a day's time frame in a few minutes. Men playing American football, schematize, the conflict between highly specialized and collaborative groups with all their relevant strategies and assaults, in a two or three hour battle. The complexities of real life, are delineated in outlines only. Contrast the long and exhausting years of a legal battle or an actual example of warfare, with a game of hockey or a game of basketball. The first is unending and infinitely extensible and complex; whereas the later is confined, clearly delineated and vastly abbreviated. Play schematizes life, it alludes to life, it does not imitate it in any very strict sense.[8]

Furthermore, it is the character of play that it retreats increasingly from the original objects of reference. It takes on its own forms so that the children's continuing play at houses or schools no less than the adult play at football, must certainly astonish those who wish to liken them to some world reality which they are supposed to portray. Parents seldom like to see themselves in the child's play of parentage any more than business corporations like to see themselves in the activities called football. Play as a kind of assimilation, as Piaget has called it, has the potentiality of losing its originals. Perhaps we should have realized this from the first ludicrous or schematic gestures of playful mimicry which were never intended to dignify their source of reference, and often only become worse by repetition. Play related to life at best by allusion and at worst by parody. It has been a great mistake of Western theorizing to see play as simply an imitation of life.[9] The normal course of events for a playing group is to become increasingly arcane in their play signals and increasingly out of touch with others who are not in the game. Investigators have found that mothers are most reticent about their "embarassing" ways of communicating with babies—called, as we have said, "motherese." It is highly probably that the structures of playful communication or "playese" are equally arcane and embarassing to their participants if they were to be displayed publically. Yet until we have systematically worked out the kinesics and proxemics of play, a unique system of communication and expression, we will continue to ignore its invasion of the crevices of our serious life.

But why should this system of expression be different from others. It is, for example, clearly different from art which goes in the opposite direction, away from arcaneness towards public symbolization and explicitness. Art must embody its expression in the public symbol systems of writing, music, paints, plastics, dance or song. Art is also a matter of fine detail, or mood, or composition at multiple levels of meaning and of high complexity.[10] Whereas play by contrast deals with gross simplifications, gross emotions (e.g. of fight and flight), disorderly outcomes and schematic representation. Whereas the mediation system is so important to art, it is a cipher for something else in play. The expression in play relies much more on the communication of internal states than upon the appreciation of external representations.

This leads to our third proposition that the main business of play is to be a *paradoxical* form of communication and expression. Playing house is not meant to be real housekeeping. A toy car signifies that it means a real car, but certainly not what a real car means. One can pretend to be driving a toy car, but one can hardly get inside the toy car and take it to market. As the anthropologist Gregory Bateson put it, when dogs playfight, each of them knows that a playful nip connotes a bite, but not what a bite connotes.[11] Being paradoxical then means that play in its essential nature unites contraries. It is and is not a fight. It is and is not a chase. The player is and is not a mother. This internal contrariness of play more than anything else differentiates it from such other intelligent activities as exploration, mastery, imagination, artistic performance, etc. Hamlet, unable to declare what he fears to be true, "to be or not to be," stages a play (within the play), within which he declares what he believes to be true, though it is, of course, only a play. He dares not say that his uncle has killed his father in order to take both the crown and his mother. But in the play he dares say both of these things. According to Bateson, play has the special character it does because it unites those motives that we prefer not to express in the light of day (anger, sex, murder, fear, etc.) with schematic behaviors which can be expressed in the light of day because they are not themselves harmful to others or ourselves. These schematic play behaviors allude to the more desperate matters that underly them, but are clearly recognized as only allusions or distortions or exaggerations of what is beneath, so that we are not the victims of these behaviors, but their momentary masters. In another book *The Masks of Play* my colleague D. Kelly-Byrne and I have shown the multiple ways in which play is used to mask the underlying intentions of those who participate.[12]

Fourth, because there is this ambivalent relationship between play and life, play itself constantly generates conflicts within its own boundaries. Plays own induction of schematic rules is itself a violation of everyday rules, and *this state of affairs appears to generate within play a constant succession of bipolar and disequilibrating structures which are recurrently equilibrated.* The most elementary forms of play involve the successive repetition of alternating states of up and down, to and fro, in and out, back and forth. You climb up and you jump down. You throw the ball and it comes back. You fill up the bucket and you empty it out. With increasing maturity these antitheses are absorbed into larger cultural play patterns of approach and avoidance (peek-a-boo), order and disorder (knocking down block structures), chase and escape, attack and defend, score and outscore, win and lose. Play becomes a vehicle for captive alternations as if suspended between a reality which is defied and a reality which can never be overcome. It is a dialectic which both mirrors and mocks reality but never escapes it. It is perhaps for the reason that the underlying emotions are so absorbing and yet must be kept at bay in their original states, that the communications of play are schematic and suggestive rather than clear portrayals. The emotion must be understood and expressed in these indirect and exaggerated terms rather than in its original nature; or else these temporary periods of sane "insanity" would not be available to the playing creatures, otherwise totally trapped in their normative and conventional behaviors.

Fifth, play is a *primitive form of symbolization of the underlying motivations*, certainly preceding both language and art in its ability to reach out to others similarly afflicted in order to share meaning and receive companionship in that communication. We need always remember that it is so primitive that even dogs do it. They also, along with many other animals, can achieve a kind of moving stasis, forestalling rampant natural instincts, by these incessantly bipolar and relatively non-harmful actions. While many theoretical terms are used to suggest how this very primitive self representation of conflict is helpful—such as "tension release," "displacement," "catharsis," "abreaction," "psychotherapy"—it remains one of the mysteries of animal and human nature why play's excitements appear to mean so much to those who indulge in it, and so little to the others who do not happen to share those particular secrets.

In sum we metaphorize play as bathos, and we define it as primitive and paradoxical communication, schematic expression, and a succession of disequilibrial bipolar states, with their own rules, sequences and climaxes.[13]

If we acknowledge that we have indeed captured play in these descriptions, it is hard to see why so many practitioners and even social scientists still prefer to use the term so much more amorphously for almost everything that young children do. Piaget, it seems, does not make this mistake. We have no reason to doubt that Piaget's intuitions about his infants were valid (though no reasons to be certain that they were correct, either). Piaget had probably seen his infants with Mrs. Piaget a great deal, and, although he usually leaves her out of the picture, he would undoubtedly have learned to make discriminations of her relationships with the baby that made him feel that these particular examples were the play ones. But by leaving her out, he also neglects the role of her signals to the baby; that is, he leaves out the social context without which it is difficult to be sure when play occurs. Most of us use the social context in order to declare that play is indeed present. We usually recognize play, because the activity is taking place in a playground or a nursery play-corner (physical context) or because we see the exaggerated "play" faces and noises of the participants (social context), or because we see the fantasied or non-ordinary character of these actions and toy objects (ludicrous context) or because we see the rising excitement, anticipation and climax of the actions (emotional context). It is the combined character of all these signs that usually make us sure we are watching play. Again, play is not just any one of these things (though it can be), but usually a form of communication that is apparent because of all the messages it gives forth; it has high redundancy. After all, when you are at play you cannot afford to take the chance that others will mistake what you are doing for something real (unless superb irony or black comedy is intended). But, for the same reason, infants who have not yet mastered such social contexts cannot easily signal to us when they are engaged in solitary play, and we, therefore, have considerable difficulty in interpreting their solitary activity.

It is noticeable that Piaget gives very few examples of infant play in *Play Dreams and Imitation in Childhood*. Yet in *The Origins of Intelligence in Children* he gives innumerable examples of intelligent activities from the first year of life. He lists only seven play examples for the first year and only twenty for the second year of life. For the third year of life and beyond, he again gives innumerable examples of play. So, either there is little play in the first two years of life or it is very hard to recognize, even by such a brilliantly insightful observer as Piaget.

None of this is to deny that it is probable that some or all of the above characteristics may carry over from parent-guided social play into the infant's solitary activity as some approximation to play. Like babbling and cooing, perhaps these early shifts of attention, relaxation and self-enjoyment are precursors of play rather than the complete thing and perhaps should not be overinterpreted.

Exploration

But if the babies are not at play, what are they doing? The position taken here is that, for the greater part, they are intelligently exploring their situation and doing whatever they can to master their relationship to it. They are working! They are doing what you and I would do if we were in a totally novel situation with few constraints on our activity. The situation of the baby is, to some extent, like that of the men landing on the moon, or like people traveling in a new country, who do a great deal of observing and a certain amount of exploring. In recent years this realization has led many investigators to distinguish between "exploration" and "play." They usually define the former as exposing oneself to what the object is like and what it can do; and the latter as when one makes it do what one wants it to do—a shift from a relatively more passive mode to a more transforming or active one. Or, put more technically,

> exploration consists of cautiously and gradually exposing the receptors to portions of the environment. The goals or incentives consist of sensory stimulation and novel stimuli in any modality . . . Play consists of a wide variety of vigorous and spirited activities; those that move the organism or its parts through space . . . and [those that show the] vigorous manipulation of body parts or objects in a variety of ways . . .

These quotes are from Dr. Roberta Collard of the University of Massachusetts, who has worked experimentally with eight- to twelve-month-old babies.[14]

In some more recent works the characteristics of exploration have been listed as follows:

—Indiscriminate mouthing of objects

—Manipulating objects by banging or shaking them

—Manipulating relationships which are not object-appropriate (combining pieces of toys or objects in ways neither appropriate to their character or conventions for them)

—Manipulating relationships in ways suggested by the objects or conventions about them (lids on teaports, spoons in cups)

—Imitating conventions about the use of these objects but in fragmentary and incomplete ways (e.g., putting phone to ear but without further enactment)

—Perceptual exploration via observation

It will be noted that these descriptions are closely parallel to those given in the prior chapter, when we considered the child's toys as tools. There was a focus by the child on discovering what one object can do (through eight months) or what two objects, when related, can do (through twelve months). The infant period might be described as an inquisition, displaying intensive instrumental sensory motor activity, into the meaning of things. Without prejudice the child seeks to discover what the things can do, and as research shows, the more complex the things are, the more time that is spent with them. Toys, tools and exploration is part and parcel of the same thing, at this age level. In subsequent years, of course, this exploration will become a broader and deeper activity involving mental and emotional explorations—investigations into nature, space and time.

Mastery

But tools have another meaning at this and every other age. Tools are not only things to be discovered in their own right; they are means to personal self-assertion or autonomy or

Mastery. A major meaning given to children's play by many writers, in particular by Erik Erikson, has been that it is a means by which the child proves personal mastery. The tool is a way in which the young child discovers the self. "A young child proves his or her intentions about actions that have a clear effect on the environment; by moving things, by running, jumping and catching . . . These gross actions provide the clear evidence that there is an agent capable of having an effect."[15] Toys are the tools of self-assertion. Obviously it is not always easy to tell when a child is exploring or is testing itself with a toy, but it is more likely to be revealed in highly repetitive acts with familiar toys than with the cautious examination of novel ones. Though we might call this activity *self-testing behavior*, the more frequent usage of the word "mastery" in the literature would seem to suggest its value.

The difference between exploration and mastery is a difference between a preoccupation with one's responses as they are object-concerned, and the assertion of one's responses as they are self-concerned. Obviously, it is not always possible to make this distinction, but it is helpful in this light to consider the difference between the *program languages*, which are on the computer and which the user seeks to understand (exploration), and the *keyboard or control systems* through which the user seeks to exercise dominion over those programs (mastery). Think, in particular, of video games, in which the player's own mastery of the control system is the key to winning. It follows that while the assertion of mastery may well be accompanied by a sense of joy and autonomy and delight, it still need not be play. Children as well as adults get great pleasure in anything that they can do effectively. As mastery is more likely to be achieved with familiar things, it is more likely to be practised on familiar toys. One recollects the anecdote of the little boy riding endlessly around on his bicycle. He was asked was he playing on it. He said that he was playing on it now, but that originally it had been hard work learning how to ride it. Exploration tends to precede mastery which tends to precede play, and they are not always easily distinguishable.

Some of the characteristics as well as the terms occasionally given to exploration or mastery or play are as follows:

EXPLORATION	MASTERY	PLAY
analytic intelligence	synthesizing intelligence	*Signals for play*: smiles, mimicry, iconic sounds, gleaming eyes, laughter
exploratory learning	testing behavior	
perceptual behavior	practice learning	*Structures of play* (which are also signals): exaggerations, galumphings, game routines, pretence, repetitiveness, lability of actions, transformations of usual order and usual relationships; unusual degrees of excitement
manipulatory behavior	exercise	
investigatory behavior	skill acquisition	
search behavior	problem-solving	
	construction	
	expressions of power	

We can sum up this account of the first year of "play" life, then, as involving three concepts: *exploration, mastery* and *play*. Since the bulk of the descriptions of children's solitary activities in the first year of life can be described as exploration or mastery, it is hard to resist the conclusion that, except when they are "playing" with their parents, children do not play much in the first year of life. Perhaps play is a relatively rare form in an infant's life. Perhaps for that matter play is a relatively rare form in all our lives.[16]

What this adds up to more importantly for this work is that for the first year toys may have very little to do with play. They are materials for learning, a kind of curriculum for the child to explore and to master. We have then the paradox that in the first year of life we are giving children toys so that children can use them to do their work of learning (exploring and mastering). Yet the reasons for giving them are usually associated with our own romantic notions about play and about gifts and Christmas and loving. We do not say, "Here infant, go to it.

These are the tools for your mind. So sharpen up the manipulation." No, that's not how we feel about it. We say, "These are for you to play with."

CHAPTER 10

Play and Work After Infancy: The Second Year

If there is little play in the first year, we might perhaps assume there will be more in the second year. After all, the second year of life is a year of that most important of all human transitions, from the governance of life by physical relationships to the beginning of its governance by symbolic relationships. The toy that is a tool in the first year, during the second year may become a symbol. That is, instead of being an object which is acted upon only for the sake of the physical action, it may now come to stand for something else, as a toy truck does for an automobile, or a toy doll for a person. The data shows, however, that this all-important transition should not be overemphasized. The bulk of children's activity in this second year is still governed by sensory motor intelligence, which means that most of it continues to be about exploratory and mastery activities of a physical kind, and very little of that is play. Toys are still largely tools. The dominant play forms are still with the parents for whom playing with their children is at a peak during these first two years of life and only subsequently decreases except for such activities as playing with balls, wrestling and tickling, which seem to hold fairly constantly until about nine years of age.[1] Fathers carry on more of this activity, perhaps because fathers have been more active in physical play with their children since birth. The best evidence that there is still as yet little solitary play by the child itself comes again from Burton White, who, with his colleagues, studied approximately 20 children through the first six years of their lives.[2] In their particular sampling of the children's activities in the second year over 80 percent of the time the child spent by himself. This is an enormous amount of solitariness! The other 20 percent of the time they were involved in getting help and services from the mother. About 20 percent of the total time usage was spent in gaining information by staring or listening (perceptual exploration); 10 percent was spent in active exploration (both manipulatory and investigatory): that means a total of about 30 percent of time spent in exploration. An additional 11 percent of their time was in mastery. Adding these all together: about half of the child's nonsocial activities were in exploration or mastery. The other half was spent eating, doing nothing much, passing time, preparing for activity, procuring an object, easing discomfort and restoring order. Only in the second half of this second year did "pretend" play make an appearance, being given a 2 percent share of non-social time. Even in the third year it still remained at only the 2 percent level. In summary, there is nothing much in this data to suggest that children "play" much at all solitarily in the second year of life, at least using our definition of play.

But perhaps this is false. Play might well constantly flicker in and out of exploratory and mastery activities, perhaps being cued by a relaxed face, smiles, laughter, or the gross movements of jumping up and down with shrieks. These would be moments of play in the midst of exploration and competence. But like most play in adult life, when it is not institutionalized (in games, sports, picnics, sprees, etc.) early child play, when solitary, may well be usually of a fleeting character. For all we can know, there may be, in the midst of these activities, a childish precursor of what adults call "DAYDREAMING" or "REVERIE." This is not play, but more, in fact, like dreaming: a passive kind of rumination—feelings and images that glide about and enfold and make more bearable one's practical actions. One may assume that ever since birth there is some infantile counterpart of the daydream, though we would assume that its contents would not be as specific as they become in later years, although even then they are not very specific.

Other investigators, too, find a shift from the practical to the symbolic from the end of the first year of life to the end of the second. Toys at the earlier stage tend not to be used for their own worth; rather, they are dealt with in terms of their *physical characteristics* (their weight, their softness, the noises and movements they make, how good they feel in the mouth). In general, the more reaction that can be squeezed out of them in this gross physical sense, the more time children will spend playing with them. We need to think of toys, from 6–18 months, then, as physical or mechanical tool systems producing effects on the world or on the baby, rather than as representing something symbolically.

Increasingly throughout the second year, however, children begin to acquire those conventional behaviors that go with the physical or social functions of the toy.[3] Thus, if it has wheels they will push it; or if it is a teapot, they will put on the lid. By two years of age, most of the simple toys given to children are handled by them, most of the time, in a conventional way: dolls are put to bed; trucks are pushed up hills; stuffed animals are cuddled; telephones are talked to; rocking horses are ridden; blocks are stacked; very simple puzzles are put together; play-shovels are used in the sand and Play-doh is rolled into snakes. In addition, instead of dealing with one or two objects at a time, the child can now deal with two or three, and has become skillful at relating different objects in appropriate ways (e.g., putting dolls on beds).

Children do not generally begin to apply these conventional behaviors (e.g., feeding a doll with a spoon) to unconventional objects (e.g., feeding a big block with a stick) until the conventional behaviors are well established. Such "innovative" or unconventional behaviors generally occur much more in the third year than in the second. It has been shown also that in the earlier part of the second year it is easier for children to do these conventional behaviors when the toy objects are themselves conventionally representative.[4] That is, they can play more imaginatively with a real toy (car, doll) than with a nonrealistic toy. In short, at the earlier ages (12–14 months) it is not very easy for children to know what "abstract" toys represent. They do better with the conventionally realistic toys, as anyone does when tackling some new area of expertise. When I am studying astronomy, for example, my own grasp is sufficiently elementary that I am much helped by concrete models of the way the planets move about the earth; a professional astronomer, however, can do it all with mathematics. It is the same with children, when they first come to grips with the meaning of a car or a baby or a house, their play moves along more easily if the toys representing these phenomena look like the phenomena. A primary principle for the toys of this second year, therefore, is that they should be *simplistically representative*. This implication for toy technology runs counter to the beliefs of most innovative people, who approve their own or a child's use of some object in a highly imaginative or nonrealistic way. They feel that realistic toys are a curse and a limit rather than an extension of the imagination. There now seems good evidence to believe that this attitude is "incorrect," at least for a child's understanding of concepts, for which, in the initial phases, realistic models are in order.

The application of conventional behaviors to conventional toys (putting dolls to bed) is usually called *pretend or symbolic play*. Piaget was the first to note that the second year is remarkable for the child's acquisition of various types of symbolic behavior—in imitation, in language and in play. In each of these areas children begin to be able to use behaviors or symbols or objects to refer to things other than themselves. Two-year-olds begin gradually to imitate acts not present to the eye, to use language for things not present to the eye ("Dadda comes?") and to use toys to stand for things not present to the eye but presumably retained in memory (putting cars into garages), the latter often called "pretend" play. Although Piaget, and many since, have stressed the importance of such symbolic play and its acquisition in this second year, it is safer to assume not that many of the first appropriate uses of toys (putting trucks in garages) are completely symbolic for the child, but rather that the child is simply imitating what s/he has seen other children or adults doing with those same or similar toys. There is evidence that just as children learn how to play by playing with adults, so they often begin even their solitary play by imitating what they have seen others do with those same toy objects. To begin with, then, their solitary play behavior, as well as their social play behavior, is imitative of what adults or older children have done in front of their eyes. It is mostly a form of imitative exploration or imitative mastery. We simply do not know when the infant who pushes a truck about, or tucks a doll into bed, comes to realize that the truck stands for real trucks or the doll for real babies.

Symbolic behavior, like play behavior and language behavior, is not acquired all at once but in a series of steps that seem to shift from *imitations* of pieces of regular behavior, such as telephoning; reading; combing; crying; eating; sitting; drinking; going to bed; toileting; using dolls, toys, spoons and cups—to *identifications*, in which the child pretends to be the mother or the truck driver. It is only identifications that can be more surely regarded as pretend activities, and these are fairly infrequent, as we have seen, in the second year of life. Even imitations, where they occur, may be more evidence of exploring relationships and mastering them than of yet truly "play" behavior.

Once again, Piaget was the first—this time to propose the kind of steps in pretend play through which the child proceeds in the second year of life, and investigators have since modified them in various ways (see Table 10.1). We have already said that while these kinds of activities appear in the second year of life they are still relatively rare, depending, of course, on the child, the parents and the amount of stimulation and modeling of this kind of activity that the parents have given. In addition, although most experts call these activities examples of "pretend play," they need not be. Especially in the earliest states, they are more likely to be the imitative exploration and imitative mastery of these objects, in which the child acts with them in ways he/she has seen parents or older children do it.

The Imagination

And now we must add an even more difficult concept, which is that even when imagining, children are not necessarily playing. This is a difficult concept to contend with, because the majority of modern researchers actually use the presence of imagination as the major way of identifying play. What I wish to argue is that imagining is a human function that develops in children and is often associated with play, but need not be. All human planning and all art involves the imagination, but none of it need be called play.

Unfortunately, the terms imagination and play have been so closely associated in Western thought since the beginning of the nineteenth century, that it is almost impossible to tease them apart. The idea of the imagination as something personal, rather than something associated with the "otherness" of spirits, or religion, is a modern concept. It developed at the same time as did the physical sciences and the literary novel. The hypothetical thinking of science, the imagination of novel writing, and the pretending of play have tended to be treated as one and the same thing. But the greater part of the imaginative activity of humankind is a sober functional affair—the consideration of the alternatives for coming events—and need have nothing to do with play. Similarly the greater part of art is imaginative construction, which is anything but playful. Not that one cannot occasionally be playful in one's thoughts, nor play around within one's imaginative activity, but these are not to be identified with play simply because that occasionally happens.

Because children do not participate in our adult world, and because we create worlds in which they *are* allowed to participate—worlds which we choose to call play worlds or worlds of toys—then it is often possible for children to exercise their exploration, their mastery and their imagination only within those worlds. Because we call them "play" worlds and largely seek to confine children's activities to them, it need not mean that children are actually at play in them. It should be remembered that, prior to 200 years ago, most children participated in the adult world most of the time, working in that world and taking part in its festivals as early as they were

Table 10.1 SYMBOLIC ACTIVITIES BEGINNING TO APPEAR IN THE SECOND YEAR

1. Pretending an action of one's own (drinking from a toy cup)
2. Pretending about another (feeding a doll with a spoon)
3. Imaginative substitution (drinking from a shell)
4. Pretending sequence for self (feeding, going shopping, going to bed)
5. Pretending sequence for objects (doll being fed, dressed, put to bed)
6. Double substitutions (clothespin as doll; cloth as bed)

capable (at least by six or seven years of age). But as industrial factory labor developed and as first men and later women left home to labor, so children, now unemployed, were increasingly brought under new systems of social control. What the village or family had once controlled now became the duty of the state. Gradually in the nineteenth century schools were established to bring all children under social control as well as to enlighten and moralize them. In the twentieth century, sports and recreation programs were used to control children's out-of-school leisure time. More recently the coming of television and home computers has helped to control children's behavior within the home. It is in these changing social contexts that we have come to define the child's world as a non-real world, a non-economic world—a play world. And we have come to assume that everything that happens there is necessarily play, when it may not be at all.

Looking back at the list of symbolic activities (Table 10.1) that may begin to show an appearance in the second year, we now ask whether they need be play. They are all certainly phases of symbolic development. They are all imaginative. But there is nothing to say that they are not simply those exercises in imaginative mastery that are available to children confined, as they are, to thinking imaginatively mainly about "toy" kinds of phenomena. What these children might be exercising is a symbolic capacity first involving themselves, then involving objects, then involving people; first involving part actions and later involving sequences and complexes of actions. Presumably these are kinds of mental structures that must develop somewhere regardless of play. They are not distinctive of play, although they are of the imagination, so there is no reason to call them "play" unless there is evidence of the various characteristics delineated in the last chapter (play-signals, paradoxes, excited bipolar routines and climaxes). Play is present, not when we see a parallel to cognitive structures or life events, but only when it has the character of bathos as described earlier.

We have been making the case that one does not see much imaginative activity very often in the second year and, even when one does, that it is not necessarily play. Still, children are playing. There continues to be their play with parents, and there is increasingly, if they are lucky, play with other children, although in the course of the past 200 years we have tended increasingly to keep children from having access to other children. This is a part, no doubt, of bringing them in from the care of outsiders, from the concourse of the village and the streets; and leading to that condition of intense mother/infant verbal stimulation, which is a characteristic of modern—but seldom of ancient—society. In recent years, however, as women have returned, in increasing numbers, to the work world, there has been much more discussion of peer relationships among even very young children.

Burton White's data of low play percentage (2 percent) is obviously taken from children who are playing by themselves, and this is also true of almost all the experimental studies of toddlers at play. The experimenters often put children by themselves so that they can study the effects of this or that play stimulus on the child. In some ways this "unnatural" experimental approach is not an "unnatural" condition, given the isolating effects of the modern home (the experiment in part is representative of the domestic situation). But it most probably leads also to an underestimation of the playfulness of children, because children usually prefer to play with other children than by themselves, and because they are more likely to play with familiar objects and familiar children than in unfamiliar experimental surroundings.

Playing with Peers

There are increasing numbers of studies showing that when two-year-olds are put together in situations with which they are familiar or with their mothers nearby, they will interact with each other and some of these interactions will be playful. Some investigators are inclined to call all of these toddler interactions "games," but this is the same tendency to overgeneralize play that we have already been combating in this chapter.

The most relevant work for our purposes here is that of Edward Mueller of Boston University, who has specifically studied the way in which toys help toddlers in dyads play together over periods of months and years.[5] He believes that when toddlers meet, all they have in common are their previous techniques for solitary play with toys; so what they do, in effect, is offer to teach these to each other, copy each other, exchange with each other and thereby learn how to play together socially. In addition, just by playing alongside each other and interacting, even if they don't really understand each other, Mueller has shown that they are more inclined thereafter to develop common meanings. There is much to this argument, although we would point out that almost all the categories that follow below (e.g., exchanging toys and copying actions) have already been practiced assiduously with parents for the prior year, so those parent-child interactions enter into these peer ones as well. "Bathos" is well understood already by one year of age. In less than half their interactions, according to Mueller's study, did the children actually share meanings. In order of frequency, however, their shared meanings were:

1. struggling for possession of objects
2. copying each other's actions
3. exchanging objects
4. copying each other's sounds
5. being aggressive to each other
6. responding with positive feeling
7. responding positively vocally
8. running in an out of the curtains (a game)
9. running, chasing
10. playing Peek-a-boo
11. sharing a reference to something
12. rough and tumble

Clearly, there is much more play in this physical play world than we have been getting in the symbolic worlds discussed above. But even here it turns out that over half the actions are combative (struggle and aggression), and a number of the other categories are probably not play. Those that are most self-evidently play (numbers 8, 9, 10 and 12) constitute only about 10 percent of these shared meanings or 5 percent of the total relating, which is not very much. Some of the copying, however, is probably also playful, as may well be the positive responses and the exchanging of objects, which, by our calculations from Mueller's data, could bring his total of playful sharings to 25 percent of all relating. But that is very optimistic. None of this need be playful; it only might be.

Still, what we have in this data of Mueller's that describes the second year is not only some social play, but also what we might speak of as games. In the running and chasing and Peek-a-boo we have the following characteristics, none of which requires the activity to be a game, but any of which together increases the probability of its being one:

1. mutual involvement
2. taking turns (and giving signals for turn-taking)
3. repetition of the actions again and again, as routines
4. the bipolar reversing of roles (being chaser, then chasee)
5. climaxes: the potentiality of the order that is established breaking down so that the routine has built into it some inherent instability. In all of these early games, there is a movement of action from order to disorder and back to order again. It is the control of this central dialectic between the players that most truly constitutes a game structure. In later years this will be the dialectic of competition with which we are all familiar; but at these early stages it has more to do with integration than with competition—how to keep the dyad actions continuing under the strain of possible dissolution by childish inattention, or childish incompetence and lack of control over the resources at hand. The excitement lies in this fatefulness of the game.
6. signals for play (smiling, laughter)

Obviously children can take turns and make exchanges simply for the mastery of these, and we are never entitled to say that they are doing anything more than this, steps 1–4, unless steps 5 and 6 are also present. As we have already said, there is a general agreement among those who study play that, even though it is often hard to define play, observers can usually reliably agree when it is present. Even as adults, when we may hardly know what is going on, there is a spirit to play which makes it recognizable, because it has laughter, nonsense, exaggeration, unusual voices and unusual faces and a special excitement, which, though often hard to specify, nevertheless influences our conclusion. What one often sees is that one child executes an action, such as jumping off a chair; another comes along and copies the action, at first quite soberly, as an attempt at imitative mastery. Then the first child repeats the action, and the second copies that action. Suddenly a smile (a signal) flickers between them, and the issue of repeating and copying becomes a kind of mutual "game" between them. It has become a problematic event, which they now feel they can control but which has in it the excitement that perhaps they can't control it, because one of them might fall, or not jump well, or the play might simply not be worth continuing. The game lies in this mutually sensed destiny and the excitement of their own actions being under their own control but also being under the threat of their own incompetence, their lack of maturity, or the obstinacy of the physical nature of the chairs and ground with which they contend. And it is all play, because, although being able to copy each other may be a problem, they have decided, after the first indications, that they can indeed master it sufficiently well and that it is a problem that they have set up for themselves, not one imposed on them by other persons or by nature. It is in that sense of their own autonomy and of their ability to depart from the way things usually are, that sense of inconsequential "otherness," that play is constituted. Without that sense of inconsequential otherness, nothing is play, although it might be daydreaming, exploration, mastery or the ever-present imagination.

The Third Year and After

It is fairly clear from most available data that at least by the third year we can increasingly say that, even when on their own, children are playing a considerable amount of the time. We can now say children are not simply exploring and mastering cultural tools (balls, circles) or cultural icons (cars, houses, dolls), but are also playing with them. It is certainly a popular view in child psychology that the period from two to five years is the heyday of imaginative play. There is evidence in the study cited in Chapter 11 that that may be the case, for example, the two-year-old boy imitating his father "with mounting complexity, concentration and excitement." Or the three-year-old "pretending to be an electrician," or the four-year-old on his "hobby horse." Or the three-year-old girl mailing letters in her toy village, or talking to her stuffed dolls. Or the four-year-old taking the temperature of Cookie Monster with a paint brush. All of these would be generally accepted as play. Still it is not simple because in the midst of some of these accounts one feels that the soft toys mentioned are often direct companions and friends for bed time and for dark nights. They are substitute companions, not toys. Furthermore Burton White continues to give very low percentages for solitary pretend play (2%) even in this third year. In most modern writing on play, psychologists have generally been happy to say that play is present if the children are *pretending*. They use the presence of an "as if" attitude as the key indicator of play. And there is certainly data showing that between the ages of two and four years children spend much time making sure about whether or not they are pretending. "Do you mean it?" "Do you really mean it, or are you just pretending?" they ask each other. Catherine Garvey, who has done outstanding research on this question gives the following examples of the way in which two- to four-year-old children test each other out:[6]

a) terminating a transformed identity,
   "I'm not the dragon anymore please don't push me 'cause I'm not the dragon anymore."
b) denying existence of an imaginary object,
   "I have some cookies." (eating imaginary cookies) "I don't see any cookies." "Uh huh, you do." "You were pretending?"

c) transforming imaginary cake into cake pan,
   "I stealed your cake." "I don't care. It's not a cake anymore."
d) terminating a joint experience, mutual phone call,
   "They're not really real telephones, are they?" "Un unh."

In our experience, however, the most frequent way in which the youngest children communicate to each other that they intend to play is through a direct play action which is like an offering, which if the other imitates it is then seen as having been received. The first child might simply jump up and down on a doorstep. As there is no reason for doing this that is obvious, it is taken as a "playful" action. If the other child does the same thing, then smiles and giggles often follow and a playful series has begun. We remember how parents first play with their own babies by imitating them and then having the babies imitate them back, and we therefore, suppose that this imitative turn-taking is the most basic form of communication used to instigate play. Catherine Garvey has shown that 2- to 4-year-old children not only imitate each other in turn-taking series of a physical kind; they also do it by chanting words in turn to each other. She calls those "rounds." What is important to emphasize is that play always involves these kinds of signals between the players. Even though play seems to come and go quite quickly, it nevertheless does require these quite complex forms of communication; and it is these which in part make play very different from other kinds of child activity, like exploration, mastery and imagination, which are pursued without any such indication that in those activities things are not as they seem.

When players play by themselves as in the bulk of the examples in Chapter 11, we usually have to infer that they have such a play attitude from what is going on, because we have not (as observers) been given any signals. Playing with toys is, of course, a primary signal. Toys not only symbolize the real world (dolls, cars) they also signal 'this is play activity.' As we have so often emphasized, it may not actually be play when toys are

Table 10.2 TOYS AND HUMAN ABILITIES

Spatial	*Science (logical-numerical)*	*Musical*	*Kinesic*	*Verbal*	*Inter-personal*
					1-2 yrs.
rattles nesting-blocks blocks mobiles peg & hole stacking sand water		music books	balls push & pull carts rockers swings hammer pegs	clothbooks pictures	soft toys peek-a-boo infant-mother-games
					2-3 yrs.
crayons clay easels beads trains form boards	wooden jigsaws	toy music record players	cars wagons balls 3 wheelers scooters rocking horses trucks	picture books & story books	doll houses telephones pretend family play

tool set construction sets Lego scrapbook threading	magnets magnifying glass dominoes number games counting games	chime bars xylophone bells	sports equipment	jokes	dressing up puppets imaginary companions	3-5 yrs.
sewing	puzzles cash register	instruments record players	gymnastic equipment kites, tops, bicycles, hoops, bars	song books riddles 20 Questions Scrabble	theater games pets	6-8 yrs.
mosaics model kits art & craft kits geography games	card & board games electronic games science kits Monopoly chess		sports and games			8-12 yrs.

present because the child may be simply being an intelligent explorer of what makes the toy work or is proudly showing that he can master it, as in riding a bicycle.

Because ours is a culture which increasingly secludes children from everyday life (in home, school and playground) and regards almost whatever children do by themselves as play, they themselves learn to use the word "play" or the word "pretend" as signals for any of their own activities. You ask them what they are doing, and they may well say "Only pretending". And they may be pretending, but they may also be exploring or mastering or imagining or something else. It can be a defensive use of the word play, in order to justify their own activity space. The antagonism to play in our civilization and its earlier neglect has led to the use of the words play and pretend in these defensive manners. So when someone says that they are at play, that may not be the case. What we try to do to make things clear for ourselves and for children is to give them toys and put them in playrooms, playschools or playgrounds and then assume that what happens in those spaces is indeed play. The object and the spaces by being labelled are supposed to carry the signals for us, but it is seldom that simple.

In the period between two and four years, children become increasingly interested not just in toys but in the scenery or settings that go with them, a realization that has made Fisher-Price a fortune, with their series of toys provided with settings such as gas stations, villages, hospitals, restaurants, fire stations, etc. In addition they become capable of playing not just one role (mother) with their toys, but two or three at the same time (mother, father, baby, etc.). By four or five they try on imaginary roles (monsters) and throughout this age period they become increasingly adequate at a broadened emotional range with imitations of anger, crying and joy.[7]

From six to eight years children's toy choices, their hobbies, games and sports probably increasingly play a role in shaping their concept of themselves, and may even have a part to play in affecting their developing abilities. For example, in Table 10.2 there is a list of six major human abilities and some of the toys that might well play a part in the development of these abilities. Whether the toys play that part because of the child's exploration, mastery, imagination, art-performance or play we do not know. But it is not unreasonable to suggest that continuous activity over some ten years at one or more of these kinds of abilities might well have some impact on the "players" development.[8]

Conclusion

We are presented with the quandary that historically toys have been increasingly associated with some kind of developmental progress, some kind of learning, whether this be regarded as of an evolutionary, mental health, motor or cognitive kind. We have bombarded our infants with toys partly because of the view disseminated by psychologists, that such toys have a salutary effect upon exploratory and cognitive activity. And yet through all of this we have not seemed to realize that children's activities with toys involve a variety of kinds of learning (exploration, imagination and mastery); they have seldom been about play alone. In the first two years of life, toys have been largely *tools* for children to learn very directly the motor, the manual and the manipulative relationship to substitute objects; to objects that are not regarded as real tools or real objects by their parents, but only facsimiles for such real objects. We have perhaps called all this activity play because it is mostly with the substitute objects that we have given our children. It is because they are learning in a vicarious world rather than our real world that we call what they do play. But, as we have argued in this chapter, the children are not playing even if their world is littered with these miniatures, which we see as substitutes. Even in the third year solitary "play" is probably minimal though social play becomes more apparent.

Do we keep thinking of infant toys as playthings because we want to associate our own gift-giving with the euphoria as play? Are we trying to protect ourselves from our own ambitions for our children? Do we seek to alleviate our perception of how driven we are, by pretending we are not, after all, driving our children, we are only encouraging them to play?

Whatever the case, once again we have the paradox, that we who are so serious about our children's achievement, pretend to ourselves that the toys (tools) we are giving them, are not really serious, but are just playthings. We make our children the vehicles of our progress, while at the same time we deny that, in the state of childhood, what they do is really that serious. Do we use the term "play" to disguise from ourselves the extent to which we are in fact driving our children along the paths of achievement?

Whatever the answer, this chapter makes clear that toys can be both vehicles for the growth of normal abilities as well as instruments for play. In the first few years the former function is the dominant one. In later years, after the age of three, the play function may become dominant. It is part of the peculiar complexity of toys that they can play to both tunes.

PART
IV
The Toy as Market

CHAPTER 11

The Toy as Novelty

The many incidents and anecdotes of the introductory chapter stem from that new power over children's play and children's toys; the toy marketplace as mediated through television commercials. While the marketplace has been there for some time, the coalescence of that marketplace in the form of toy barns and toy cities, with the incessant advertising of toys along with children's highly magnetic programs such as cartoons, has created an enormously powerful agency for the control of play. Many more children than ever before are spending more hours playing with television-sponsored toys which simulate television characters or events in front of the television set. Although there is no precise information on what this means or how children are affected, it does mean that a great deal more of children's play is now associated with toys and with their relatively solitary play condition, than with street play among their peers. While it is probable that most children also get to play with peers and siblings in other places with or without toys, and perhaps even to play with their parents, television has clearly meant a boost in the importance of toy play in modern society, and has created a captive marketplace for television-sponsored products. Play in the modern world has also come to mean playing *with things* more than ever before. Play throughout history has been an overwhelming matter of *playing with others*, rather than playing with things. So attention turns, historically, from the social player to the solitary play consumer.

At this point one can discuss the modern political and economic situation which has given rise to these mass markets and the exploitation of children for purposes of profit. It is possible to parallel this excessive concentration on "things" for children with the excessive number of "things" sold to parents and make the inference that play has become in part a kind of consumer training. The parent's bedroom, bathrooms, living rooms, kitchens and closets are no less littered and heavy with possessions than is the child's playroom. It would be hard to deny therefore that the modern home as compared, say, with the 19th-century home, characteristically exhibits an excess of consumer goods. Child's play as a training in the conspicuous consumption of surplus goods would be hard to deny. Perhaps sometime in the future, someone will indeed define toy play as *solitary pleasure in the consumption and manipulation of novel but unnecessary objects.*

At the turn of the century Thorstein Veblen wrote about the "leisure class" as that group whose wealth was so great they could use it to show off their ability to consume and display without any concern for the outcome. By consuming what they didn't need, they displayed their own superiority over other poor mortals who must consume only what they must have for survival. In some sense many modern children receive many toys with which they seldom play and which could perhaps be described as examples of conspicuous consumption, by the parents as well as by the children. A kinder view is that they bring a momentary glory to the grandparents and friends who bring them. But here we do not want to follow the direction of

Table 11.1 PARENTAL ATTITUDES TOWARD TOYS

1. Do toys stereotype sex roles?

Yes	*No*	*Ambivalent*	*No opinion*
50	23	9	4

2. Do you foster this stereotyping?

Yes	*No*	*Ambivalent*	*No opinion*
19	67	2	1

3. Are toys educational?

Yes	*No*	*Ambivalent*	*No opinion*
74	4	7	0

4. Do toys help imaginative development?

Yes	*No*	*Ambivalent*	*No opinion*
66	6	14	0

5. Any problems with toy safety?

Yes	*No*	*Ambivalent*	*No opinion*
19	64	0	1

6. Do you approve of toy weapons?

Yes	*No*	*Ambivalent*	*No opinion*
17	61	7	1

7.Do you approve of toy advertising on TV?

Yes	*No*	*Ambivalent*	*No opinion*
11	38	18	18

8. Who decides what to purchase?

Child	*Parents*	*Together*	*No opinion*
3	15	64	0

9. Do you approve of anatomically correct dolls?

Yes	*No*	*Ambivalent*	*No opinion*
34	21 (16 were not asked)	10	6

10. Do space problems affect choice of toy?

Yes	*No*	*Ambivalent*	*No opinion*
43	35	0	11

thought which ties the toy marketplace back to the current industrial processes and corporate conglomerations, but wish to pursue more simply the extent to which the moment-by-moment of child's play is dominated by that marketplace. This is like asking, when the King banned soccer, did soccer really stop being played; or when the church banned idleness, how many continued to be idle, or when games of chance or cock-fighting or dog racing or bear baiting were banned, were they effectively extinguished; or when football became organized to what extent did it become "safe" to play it; or when boxing followed Queensbury, how much brain damage was there? That is, does the general state of the market determine the activity of the individual player?

Parental Responses

We begin with a study of 88 New York parents and their children carried out in the year 1975–76.[1] (See Table 11.1.) As their answers to our interview suggest they do believe toys contribute to both children's education and to their imaginative development. On the other hand, when the survey was conducted, feminist agitation was at a peak; feminists also felt that the toy industry was exercising a sex-role stereotyping influence which they did not agree with; and yet despite an equally great amount of press attention to toy safety, they did not seem to find it so much of a problem. In the aftermath of the Vietnam War they did not approve of toy weapons. They did not like toy advertising on television and they were having considerable difficulties in finding space for children's toys at home. Interestingly, they seemed to approve of anatomically correct dolls.

As judged by the fact that the choice of toys to buy is seen by the parents as a mutual choice, presumably their distaste for advertising was not accompanied by any feeling of complete powerlessness in toy choice. Many parents in the survey indicated that they wanted toys that were "unstructured" or "open-ended." They wanted toys that didn't have the end all plotted out, thus evidencing again that same preference for the non-mechanical over the mechanical as in our introductory quote from Roland Barthes. If we can take Barthes and these parents as indicating something pervasive, then, instead of being infected by the machinations of toy advertising, they are reacting antithetically to it. Apparently the several-century-old ideology that play and toys should be imaginative or educational is as yet a more powerful influence than the market view that it should be topical, prestigious and a television simulation.

Children's Gender Stereotypes

Again the antagonism to sex-role stereotyping in toys, although it has had some effects on the toy makers, was certainly never instigated by them in the first place, nor was there any original antagonism by children to such stereotyping. The relatively favorable attitude of the parents to anatomically correct dolls suggests, on the contrary, a public somewhat ahead of toy non-genital stereotyping. That the children were not making any demand for sex-role flexibility can be indicated by the following summaries from a series of sex role surveys carried out between 1956 and 1976.[2] In each study the children indicated in one way or another their favorite toys or favorite forms of play. (See Table 11.2.)

In some studies the sex differences are even more striking; for example, in a North Carolina study reported in 1975 of fairly affluent homes, the investigators counted the kinds and numbers of toys in the children's bedrooms between the ages of one and six years.[3] The items they found in these bedrooms were animal furnishings, books, dolls, educational art materials, floral furnishings, furniture, musical items, "Ruffles," spatial-temporal objects, sports equipment, stuffed animals, toy animals, vehicles, depots, doll houses, domestic objects, fauna, flora, machines, military toys. According to this study, the use

Table 11.2 TOY PREFERENCES ACCORDING TO GENDER

Brown, (1956):

Five years of age—toys

Boy Preferences (N = 78)	*Girl Preferences (N = 68)*
tractor	doll
dump truck	dishes
train engine	doll buggy
gun	baby bath
racer	
earthmover	

Rosenberg & Sutton-Smith (1964):

Ages 9-12 years—game choice

Boy Preferences (N = 978)	*Girl Preferences (N = 973)*
bandits	dolls
soldiers	dressing up
cowboys	playing house
cops & robbers	playing store
cars	playing school
spaceman	playing church
marbles	actors
bows & arrow	actresses
throw snowballs	stoop tap
darts	Ring-Around-the-Rosy
wrestling	London Bridge
baseball	Farmer in the Dell
football	In and Out the Window
basketball	Drop the Handkerchief
boxing	Mulberry Bush
shooting	hopscotch
fishing	jump rope
hunting	jacks
using tools	Mother, May I?
climbing	dancing
making radios	sewing
model airplane	cooking
toy trains	knitting
working machines	crocheting
building forts	cartwheels

Hartley & Hardesty (1964):

Ages 8-11—activities implemented by girls and boys

Boy Preferences (N = 40)	*Girl Preferences (N = 91)*
plays with toy air rifle	plays with doll carriage
hitches ride on back of truck	plays with toy sewing machine
plays with toy trucks	plays with toy dishes
plays with fort & soldiers	plays with toy carpet sweeper

Table 11.2 (*Continued*)

Boy Preferences (N = 40)	*Girl Preferences (N = 91)*
helps man fix ceiling	plays with toy pocketbook
plays with ball & bat	plays with toy electric mixer
carries wood into house	helps mother hang clothes
climbs trees	plays with little girl
plays with toy tool bench	cares for baby when parents away
plays with little boy	dusts table
plays with drums	plays with jumprope
plays with jackknife	dries dishes
plays with Erector set	washes dishes
goes with man to ball game	clears table
plays in messy empty lot	takes dancing lessons
plays in street	plays with jacks
plays with electric train	
shovels snow off walk	
plays with marbles	
plays on roof	

Activities implemented by both sexes

plays at beach
plays in country fields
plays on playground
owns and takes care of puppy
plays in park

Marcus (1976), Marcus & Overton (1978):

Games and activities considered boys', girls' or neutral, ages 6–8

Boys	*Girls*	*Neutral*
Board games:		
Battleships	Candyland	Bingo
Checkers	Mother's helper	Clue
Chess	Raggedy Ann	Go to the head of the class
Chinese Checkers	Winnie-the-Pooh	Flintstones
Planet of the Apes		Life
Stay Alive		Monopoly
		Mouse Trap
		Parcheesi
		Perfection
		Pinnochio
		Scrabble
		Scooby Doo
		Sorry
		Yahtzee

Table 11.2 (*Continued*)

Boys	*Girls*	*Neutral*
Sports:		
Baseball	(none listed for girls)	Bowling
Boxball		Kickball
Basketball		Ping-Pong
Football		Tennis
Hockey		Wall Ball
Soccer		
Pretend Activities:		
Capture	Ballet	(None listed as neutral)
Cars and Trucks	Dolls	
Cops and Robbers	Dressing	
Firehouse	House	
Heroes	Princesses	

of animal and floral furnishing decreased over these six age levels, and books, dolls, and educational art materials increased. While it was difficult for the investigators to know how to count the various toys, especially when there were many parts to a major toy (in which case they generally counted it only once), the average number of toys in the one-year-old's bedroom was 28 and for the six-year-old it was 91. Since for most of the children the major part of their toys were stored elsewhere in the house than in their bedrooms this represents many fewer toys than they actually possessed. Sex differences were striking as Table 11.3 indicates.

The table shows that the boys had more of almost everything except curtain ruffles, floral furnishings, and dolls. They had more in quantity and more in variety, more in art equipment, animal furnishings, spatial-temporal toys, sports equipment and toy animals. The educational-art difference did not hold, however, for our own New York group, where the girls more often recorded crayons, clay, crafts, pens, etc.

We are using these surveys of children and parents to argue, to this point, that despite the overwhelming power of the toy market and toy stereotypes, the customers seem to be showing their own sense of powerful agency at least within these

Table 11.3 SEX DIFFERENCES IN MEAN NUMBER OF ITEMS IN EACH BEDROOM*

Class of Items	*Male*	*Female*
Animal Furnishings	6.8	5.0
Books	28.1	23.9
Dolls	3.6	7.0
Ed-Art Materials	1.1	0.6
Floral Furnishings	3.0	4.5
Furniture	6.2	6.3
Musical Objects	1.4	1.2
"Ruffles"	0.9	2.0
Spatial-Temporal	1.7	0.8
Sports Equipment	1.0	0.4
Stuffed Animals	4.1	4.4
Toy Animals	4.8	2.3

*Mean number in the 48 rooms of each sex

confines. Despite the incredible stereotypy of both children and toy advertisers, these sampled parents are protesting against it. Despite the incredible pressure to buy television-simulated toys, the parents are voicing a preference for relatively simple toys (blocks, sand, clay, etc.). Despite a strong campaign for toy safety at this time in the press, the parents did not seem particularly engaged by it. They were against the advertising. They were against war toys; and they were not simply moved to buy the toys suggested in the advertising. Buying is something they share with the children, not give over to them, or so we are led to believe if they have told us the truth when we asked them these questions.

In sum, the ideological persuasions of the last section about toys having to be educational and the contemporary feminist liberation movement seemed to be accounting for as much in these people's responses as the direct impact of the advertising itself, or even their own children's traditional preferences in the sex role area. But, in a way this is also not strange because feminist liberation emerges from that disjunctive family world which harbors children. The larger industrial culture has for centuries pushed the family to one side and given it the task of healing the wounds and the alienation which are bred by that industrial and technological society. So when that society begins through its marketing to move directly into the living room to exploit that childish world, it is not surprising that we find a strong counter-reaction on behalf of children's play and the future of women.

Children's Toy Preferences

Still these are only parent and child verbal responses. We know that the same market is exercising a considerable direct influence on children. In Table 11.4, for example, is a list of the best-selling toys of 1975. This is evidence of what was actually purchased, not simply what was said about it.[4]

If we take what the children in our survey say their five most favorite toys are and compare them with these best sellers, we may perhaps be in a position to get some sense of the extent to which their practice is following the market, or differs fundamentally from it. Responses were taken from 32 boys and 51 girls from the ages of two years to twelve years. Closer examination shows that a comparison is really very difficult because the categories of the sales figures are too general, such as "preschool and musical" or "toys not listed in other categories" and the children's responses are relatively specific. Still, the composition of the two at least allows us to look through the children's choices to discover what is "probably" not included in the sales list. The data for the 2- 4-year-olds and the 5- 7-year-olds, and for boys and girls are each presented separately. Each number in the tables represents the choice of one child. (See tables 11.5, 11.6, and 11.7.)

When one peruses carefully the apparent uniqueness of the children's lists, it becomes apparent that there is almost nothing there that might not be included in one of the categories of best-selling toys. We certainly cannot say that the children's responses are fundamentally different from the categories offered by the toy market. Of course we can find various extenuations. After all, the toy market includes many traditional categories that preceded the modern mass toy

Table 11.4 TOY INDUSTRY NATIONAL STATISTICS FOR 1975

Description	*Shipments (millions)*	*% of Total **
Dolls over 12"	$ 108	5.1%
Dolls 12" and under	70	3.3
Stuffed dolls	70	1.5
Doll clothes and accessories	45	2.2
Stuffed toy animals; Other stuffed toys and puppets	93	4.4
Board games	175	8.3
Sports-oriented action games	86	4.1
Other games, including puzzles	83	4.0
Doll carriages and carts	9	0.4
Doll houses and furniture	30	1.4
Toy trains and equipment	49	2.3
Battery toys; Spring-action and friction toys	91	4.3
Racing sets	73	3.5
Nonpower, nonriding transportation toys	130	6.2
Construction sets	23	1.1
Model kits	85	4.1
Handicraft and hobby kits	82	3.9
Science toys	6	0.3
Guns	32	1.5
Preschool and musical	388	18.5
Children's books	35	1.7
Toys not listed in other categories	198	9.4
Autos and tractors	15	0.7
Tricycles	44	2.1
Wagons; Sleds	2	0.1
Other children's riding vehicles	55	2.6
Balloons	21	1.0
Rubber toys not listed elsewhere	6	0.3
Home playground equipment	24	1.1
Roller skates (sidewalk only)	6	0.3
Wading pools	7	0.3
*Total: U.S. manufacturing establishments	$2,103	100%
Imports by U.S. non-manufacturing establishments	288	
Total, including above imports	$2,391	
Christmas trees, ornaments and lights	210	
Grand total:	$2,601	

Table 11.5 THE FIVE "MOST FAVORITE" TOYS CHOSEN BY TWO- TO FOUR-YEAR-OLD CHILDREN

BOYS

Two-year-old Boys

1. ball, Jack-in-the-box, tricycle, musical pull-toy, books[1]
2. blocks, pull-toys, work-bench, bike
3. stuffed animals, kitchen set, boy doll, cars, bikes
4. plastic donkey, stuffed dog, tricycle, pail, small boat
5. blocks, books, truck, crayons & pens, circus train
6. tools, crayons, books, Tonka trucks, lawn mower

Three-year-old Boys

1. Batman car, two smaller cars, doll tree-house, Star Trek doll
2. rocking horse, dinosaur book, balls & bats, cars & trucks, tools & machines, (boxing gloves)
3. stuffed rabbit, fire-escape (child has no other toys)
4. stuffed dog, monkey, fire engines, trucks, bike

Four-year-old Boys

1. firetruck, hammer & nails, bicycle
2. fire engine, Lego, Lone Ranger, Evel Knieval

GIRLS

Two-Year-Old Girls

1. ball, teddy bear, Raggedy Ann, stuffed dog, blocks
2. three big dolls, books, crayons & paper
3. giraffe, stethoscope, Fisher-Price people, books, guitar
4. dolls, pull-apart car, clay, blocks
5. blocks, dolls, picture books, see 'n' say, Fisher-Price book with pockets
6. baby doll, Three Bears book, telephone, stuffed dog, Play-doh
7. balloon, pink teddy, bus, puppet, books
8. bicycle, books, piano, slide, doll

Three-Year-Old Girls

1. Playdoh, finger paints, blocks, doll, Play Family Village
2. Legos, crayons, books, Annie Dear (doll), play iron
3. paints & crayons, dolls & stuffed animals, blocks, magnet board, Bert & Ernie puppets
4. toddler doll, swing, tricycle, plastic nuts & bolts, tea set

Four-Year-Old Girls

1. swing set, tricycle, scissors, kitchen equipment, stuffed lamb
2. Mary Lou doll, pottery, craft, Sunshine family car

[1] Each number represents a different child.

Table 11.6 THE FIVE "MOST FAVORITE" TOYS CHOSEN BY FIVE- TO TWELVE-YEAR OLD BOYS

Five Years Old

1. carpenter set, planes, tuck & car, bicycle, inchworm
2. light-up gun, blocks, marionettes, hand puppets, Kung Fu game
3. Matchbox cars, rope, bike, Game of the Presidents, Game of the States

Six Years Old

1. Star Trek Enterprise, Matchbox cars, Magic Sharp-shooting gallery, scrabble, glider
2. trucks, tool sets, paper planes

Seven Years Old

1. bicycle, crayons, giant tinker toys, hockey sticks, blocks
2. erector set, Matchbox toys, trains, chalkboard easel, drawing materials
3. Dr. McCoy doll, small motor cycles, Jaws rings, pen & paper, bike
4. tricycle, ball cards, (fire escape)
5. Tinkertoy, Lego, models (war games), art supplies, chemistry set

Eight Years Old

1. football, baseball, bicycle, basketball net & ball, toy cars & race car set
2. Legos, Lincoln logs, working elevator (building toy), Cat in the Bag (game), model fort, Last Straw
3. guns, fishing pole, motorcycle, cars, football

Nine Years Old

1. sling shot, toy cars, bottle caps, board games
2. baseball bat & mitt, football, bike, telescope, dissecting kit
3. Legos, balls, football, bat & mitts, bike

Ten Years Old

1. tape recorder, bowl-a-matic, Seduction, dominoes, Whirly Bird
2. "Eagle" spaceship, "Shado" interceptor spaceship, "Orion III" space ship, "Romulan Warship," riding cars

Eleven Years Old

1. air hockey, bike, microscope, sports equipment, remote-control plane

Twelve Years Old

1. baseball equipment, all-star baseball, coin collection

Table 11.7 THE FIVE "MOST FAVORITE" TOYS CHOSEN BY FIVE- TO TWELVE-YEAR-OLD GIRLS

Five Years Old

1. doll with moving eyes, Dapper Dan, football player bank, peanuts and cheese wastebasket, bowling pin set
2. Tiffany Taylor, airplane, toy phone, football, basketball
3. box of treasures, brush & comb set, Fisher-Price merry-go-round, stuffed animals, plastic telephone
4. Chrissie doll, music box, guinea pig, telephone, pocketbook
5. doll and buggy, cards, felt pens & paper, Playdoh, small cars

Six Years Old

1. Tiffany Taylor, organ, garbage can, camera, paper
2. Chinese jumprope, Monopoly, bicycle, photo album, records
3. Chrissie doll, tiny dolls, view master
4. Barbie doll, stuffed birdie, school day desk, tiles (for making designs), mathbook
5. dolls, teddy bears, dishes, paper dolls, stuffed rabbit
6. Winnie the Pooh bear, kangaroo, larged stuffed reindeer, bicycle, swing set
7. crayons, paints, carving sets, doll house, large building blocks

Seven Years Old

1. merry-go-round with horses and a girl, bicycle, ice skates, board games
2. Paddington Bear, Holly Hobby, Wizard of Oz toys, elephant, bunny on skis
3. dolls, blocks, books, sewing basket, record player
4. Snoopy pencil sharpener, pick-up sticks, animal lotto, blackboard
5. Lite Brite, soft and cuddly doll, doctor kit, loom, jumprope
6. doctor kit, pasting and painting, loom, colorforms, Play-doh

Eight Years Old

1. horses, Barbie dolls, family tree-house, boat and figures, toy cars
2. God pictures ("God is the most important thing in the world") books, flute, candlemaking kit, pets (This is an Indian child, who proclaimed with disdain, "Toys are for babies.")
3. Barbie, Holly Hobby, Monopoly, bike, cards
4. dolls, viewmaster, records, toy animals
5. glass animals, stuffed animals, bicycle, jumprope, kickball

Nine Years Old

1. tennis, playing piano, board games, jacks, stuffed animals
2. Perfection, air hockey, 25,000 pyramid, magic game, space probe

Ten Years Old

1. cards, books, Ad lib crossword cubes, chess, Scrabble
2. Monopoly, Masterpiece, Hi-Q, stuffed animals, dolls
3. jumprope, Barbie dolls, child's electric sewing machine, Space tilt, plastic bowling game
4. jumprope, Barbie dolls, balls, Chinese checkers, plastic bowling game
5. record player, TV, records, bike, iceskates
6. Barbie dolls, balls, Sling-in-shot, pick up sticks, chinese jumprope
7. painting and drawing materials, bicycle, Monopoly, Lite Brite, Perfection, blocks

Table 11.7 *(continued)*

Eleven Years Old

1. dolls in old baby clothes, leather great Dane, African Chess, roller skates, stamp collection
2. cats, plants, drawing materials, bee collection

Twelve Years Old

1. water gun, dart board, electric trains, Barbie dolls, board games
2. books, collections, plants, pencil & paper, Chinese checkers
3. backpack, basketball, soccer ball, Triple Yatzee

market (dolls, trains, stuffed animals, books, etc.) and so in having assimilated them, it has, in effect, taken much of the traditional element out of play and made it modern. Which is to say that judged by this kind of evidence, the toys that children see themselves playing with, are those that are given them by the toy manufacturers. The genius or otherwise of those manufacturers largely determines the meaning of the toy domain. Remembering that apparently we have found the parents to be showing considerable autonomy about advertising, sex-role stereotypes, anatomical dolls, toy safety, and toy purchase, we may now need to modify that appearance to indicate that, on present child evidence, their attitudes seem to be exercised *within* the domain provided by the manufacturers, rather than beyond it.

Experts vs. Best Sellers

If it is asked what alternatives there are that the children might have mentioned, we can get some idea by comparing the recommendations of two psychological experts with the lists already given or with a new one we have of best sellers for 1982. These are lists of toys suitable for young preschoolers, for approximately the first four years. What is most notable is that expert Burton White puts his greatest emphasis on traditional

Table 11.8 TOYS RECOMMENDED FOR THE SECOND YEAR

*Burton White**

Highly recommended

wagons
doll carriages
swings
small slides
books
balls
human figures
pails
boxes
chairs
mirrors
furniture
low tables
cushions
stairs
pots & pans
plastic refrigerators
canned goods
plastic jars
water
paper

Moderately recommended

pull toys
trucks
crayons
stuffed animals
puzzles
pop bears
stacking toys
telephones

Not recommended

wind-up toys
tricycles
xylophones
marbles
checkers
matchbox cars

*Barbara Kaban***

Riding horse
(*Fisher-Price*)
Surprise Box
(*Gabriel*)
balls
wooden letters
blocks
(*Playskool*)
Rock-a-stack
(*Fisher-Price*)
Milk Carrier
(*Fisher-Price*)
Floating Family
(*Fisher-Price*)
first books
Indoor Gym House
(*Creative Playthings*)
Cobblers Bench
(*Playskool*)
Chatter Telephone
(*Fisher-Price*)
Puzzles
(*Playskool* and
Fisher-Price
Rattle Ball
(*Fisher-Price*)
Shape-Sorting Box
(*Creative Playthings*)
play shovel
Play-doh
(*Kenner*)

Best Sellers (1982)

Baby Strawberry Shortcake (*Kenner*)
E. T. Doll
(*Kamar*)
Fun Farm
(*Dakin*)
Mondhidhi
(*Mattel*)
Muppets Secret Doll House (*Knickerbocker*)
Doll House Family
(*Fisher-Price*)
Little Doll House (unfurnished) (*Mattel*)
See-n-Say Toys: The Farmer (*Mattel*)
Chatter Telephone
(*Fisher-Price*)
Mickey Mouse Talking Phone (*Hasbro*)
Smurf Puzzles
(*Milton Bradley*)
Sesame Street Muppets Puzzle (*Western Publishing Co.*)
Slow Yo Ball
(*Knots*)
Nerf Ping Pong
(*Parker Brothers*)
Strummer Surf Guitar
(*Ohio Art*)
Pull-a-tune Xylophone
(*Fisher-Price*)
Two Tune Music TV
(*Fisher-Price*)
Tote-a-tune
(*Fisher-Price*)
Music Box Radio
(*Fisher-Price*)
Tyke Bike
(*Playskool*)
Super Smurf Piggy-Back Ride (*Coleco*)
Dukes of Hazzard Power Cycle (*Coleco*)
To a Bout Car
(*Empire*)
L'il Volkswagen
(*Tomy*)
Sit 'n' Spin
(*Kenner*)

*1975, p. 185
**1979, pp. 23–41

Table 11.9 BEST-SELLING TOYS IN 1982 FOR SIX- TO TWELVE-YEAR-OLD CHILDREN

Category	*Toy*	*Maker*
Fashion dolls	Pink & Pretty Barbie	*Mattel*
Action figures	G. I. Joe figure assortment	*Hasbro*
	Star Wars Figures	*Kenner*
	E.T. Action Figure	*L. J. N.*
	Masters of the Universe	*Mattel*
Puzzles	Muppets puzzle	*Sesame Street*
	100-pc. jigsaw puzzles	*Western Publishing*
Games	Uno Card Game	*International Toy*
	Monopoly	*Parker Bros.*
	Pac-Man	*Milton Bradley*
Mini-Diecast	Hotwheels	*Mattel*
	Matchbox	*Lionel*
	Packet Cars	*Tomy*
Other cars	Jeeps	*Tonka*
	General Lee Car	*Ertel*
Mini-trucks	Scramblers	*Tonka*
Mechanical (non-battery)	Burnin' Key Cars	*Kidco*
	Finger Races	*Knickerbocker*
	Power Puncher	*Tonka*
Other trucks	Dump trucks	*Tonka* *Ertel; Ny Lint*
Construction & building	Lego	
Model kits	Trans Am	*Monogram*
	Dukes of Hazzard	*MPC*
Crafts	Play-doh Four Pac	*Kenner*
	Etch-A-Sketch	*The Ohio Art Co.*
	Silly Putty	*Binney & Smith*
Electronic games	Pac-Man Mini Arcade	*Coleco*
	Donkey Kong	*Coleco*
Video games (hardware)	Video TV Game	*Atari*
	Intellivision	*Mattel*
	Colecovision	*Coleco*
Video games (software)	Pac-Man	*Atari*
	Donkey Kong	*Coleco*
	Frogger	*Parker Brothers*
Outdoor activity	Jumprope	*Chemtoy*
	Frisbee	*Wham-o*
	Slow Yo Ball	*Knots*
	Nerf Ping Pong	*Parker Brothers*

Table 11.10 PLAYTHINGS THAT REFLECT TRENDS IN 1983 FOR CHILDREN SEVEN YEARS AND UNDER

PERSONAGES

Dolls—Twirly Curls Barbie (*Mattel*)
Cabbage Patch Kids (*Coleco*)
Action Figures—A Team Assortment (*Lewis Galoob*)
Masters of the Universe (*Mattel*)
Star Wars: Return of the Jedi (*Kenner*)
Action Figure Accessory—Castle Greyskull (*Mattel*)
Plush—Care Bears (*Kenner*)
Gloworm (*Hasbro*)

CONSTRUCTION / REAL WORLD

Cars & Trucks—Big Foot 4 × 4 (*Playskool*)
Knight 2000 (*Kenner*)
Construction & Building—Construx (*Fisher-Price*)
Playsets—Barbie Loves McDonald's (*Mattel*)

COGNITIVE

Puzzles—Care Bear Puzzle (*Fundimensions/Craft Master*)

BIG MUSCLE

Knight Rider Power Cycle (*Coleco*)

ARTISTIC—SELF EXPRESSION

Crafts—Lite Brite (*Hasbro*)
Musical—Bring-Along-A-Song (*Tomy*)

HIGH TECH

Frogger (*Parker Brothers*)
Donkey Kong (*Coleco*)

PRESCHOOL

Charmkins (*Hasbro*)
My Little Pony (*Hasbro*)
Play Family Farm (*Fisher-Price*)

toys (wagons, slides, swings) and realistic everyday objects (pots and pans, boxes, etc.). In short, if a toy has been around long enough and has become well accepted, it is O.K. But playing with home equipment is even better. Without wishing to second-guess this expert, one finds it necessary to point out the very "traditional" character of thus prestiging those things that are old. One might well ask why an expert would eschew the modern and perhaps the innovative over the old and longtested. This is the same kind of choice made by Roland Barthes for wood over plastic. In this kind of thinking, novelty is trash. Undoubtedly it sometimes is, but just as certainly the contrast can hardly be made in simplistic terms. Barbara Kaban represents a greater willingness to take into account some of the modern novelties (surprise boxes, Rock-a-stack, cobbler's bench, chatter telephones, etc.), although not surprisingly she mentions more "educational" toys.

If one compares the Burton White column with the best-sellers column, it seems likely that the novelty of the latter column would win out with most children. See Table 11.8.

Similarly, if one takes the best sellers for 1982 (Table 11.9) and 1983 (Table 11.10) it is probable that they would exercise considerable attraction to most children.[5]

Conclusion

So we have a situation which is certainly highly influenced by the market, and we have some gleanings of parent autonomy (but not much yet of player autonomy). We certainly have a case in all of this for an ideology of the toy market being the most important current play ideology with respect to the family situation and television-related playing. We have already defined this kind of play as the pleasurable manipulation of novel but unnecessary objects. A socialist cynic would say that in addition to teaching children capitalist habits of consumption and waste, and teaching children to grow up with their self-esteem tied to the receiving of novel and unnecessary gifts or toys, we are also teaching them the addiction to novelty. By constantly changing the toys presented to children, it might be said we are educating them in distraction; teaching them never to pay enduring attention to any particular thing, because other more novel items will soon arrive.[6] In this way, it might be said, we are inculcating them in a mass leisure culture, where millions of people, despite the boredom or exploitation of their work lives are kept titillated by constantly changing leisure spectacles on television, in films, fairs, shopping malls, parades, carnivals, etc. By constantly distracting the citizenry from the possibility of truly personal development, as traditionally can happen through the mastery of highly developed leisure skills, we can contain social unrest despite considerable unemployment and poverty. In this rather pessimistic and determinist view then, the ideology of the modern market is not as haphazard a force as it seems. It is part and parcel of the religion of distraction which has become the "opiate of the masses," allowing those who rule the society to carry on in their own fashion without fear of interference or revolt.

A question about this point of view is whether one should tie this conspicuous consumption specifically into capitalist practices or generalize it to all kinds of modern technological and industrial work systems, communist or otherwise. From this point of view, it doesn't really matter which particular toys children are getting at any given time, as long as they get lots of them at various times in the year. In these terms the important feature of the year's toy schedule must be to disrupt or distract from enduring play or work habits.

There are various possible arguments against this view, the first being that it makes too systematic what is an incidental outcome of the profit motive to sell toys, or even of the increase in the worker's purchasing power. Another is that the distracted buying is itself a response to the dullness of the work life. It is as much the worker's agency of survival as the employer's agency of control.[7] Yet another is that we have no real certainty that all this distraction of toys or television leads to a "distracted" proletariat, although it is true some schoolteachers have recently been asserting about their students that they cannot pay enduring attention to schoolwork and seem to need constant shifts of attention.

Still another argument against this is that toy novelty is also a kind of information and a kind of learning. Modern psychologists have shown extensively that even the very young hunger for novelty, novel stimuli, novel objects, novel categories, and that they respond repeatedly to such novelty until they have "understood" it or have learned what its meaning is, whereupon they look elsewhere for further novel phenomena. In terms of this kind of approach, the multiple toys of the modern world could be an education in the variety of modern life.

Children are being habituated to the constant barrage of ever-changing stimulation in toys because that is also a feature of late-20th-century living. In this view the toy multiplicity is a feature of the complexity of the modern world, rather than an indoctrination to capitalistic consumption. Children who lack these opportunities, it is said, are likely to fall behind in the race for adaptation. Thus, for example, it is lamented that computers are available only to the wealthy, so that once again those who cannot afford them fall behind in the race for high technology jobs. Whether or not there is any more validity to this perspective than to the other, they have in common the view that much of what modern play is about, is pleasure with novel objects.

We have one further test of these very general propositions about the existence of an ideology of distraction or of novelty in the modern toy market. To what extent- we may ask- are children's views on toys controlled by television advertising. In general, consumer advocates insist that advertising can unduly persuade and manipulate the unsophisticated child; that advertising encourages the child to pressure parents to buy things and that advertising can imbue such undesirable values as materialism, as the need to consume, and as irrational consumer decision-making. On the other hand, the marketers contend that advertising mainly reinforces existing opinions; that parents have a key role in decision-making; that advertising can result in a positive interaction between parent and child as an occasion for learning about consumption; and that advertising only reflects the value system of the society and prepares the child for the role of consumer.[8] We have a nice contrast between those who stand to make money out of advertising, saying that it is harmless, and those who stand to lose money, saying it is harmful.

Unfortunately, the available research does not resolve these matters easily. Furthermore, most of the research asks questions which young children, under the age of seven years, are notoriously bad at either understanding or answering when put to them verbally. Within these limits the data show that the younger children (those under six years) do not easily distinguish between programs and commercials; that in fact most of them (over one half) trust, like, and want to see commercials, but by the age of twelve years very few children (about 10 %) continue to do so. Over the years from six to twelve most children become somewhat cynical about commercials, sometimes as the result of the failure of purchased items. Their requests for purchases as the result of advertisement decreases over these years, but they get more of what they ask for. The younger children ask for more and get less of what they request. In one study, Christmas advertising of toys seemed to increase children's requests for these by about 5%; which, though a negligible figure in terms of social change, may not be in terms of goods sold.

Mainly what this controversy shows is that commercials, although a part of the child's everyday television environment, and although obviously playing a part in maintaining and advancing the hegemony of the advertised toys, have a pervasive rather than a decisive effect. Which is to say, few particular commercials necessarily compel all children and all parents to respond with active purchasing, but in general these commercials establish in the minds of parents and children the "orthodoxy" of what play is all about. Parents and children will undoubtedly suit themselves, and argue between themselves as to what they want to buy. They will not be overdetermined by the particular commercial, but the range of what they will think about is increasingly influenced, even confined by what they see on television.

CHAPTER 12

The Toy as Agency

Although we can agree that children grow up in a world which today is governed by symbolic media, and that among these media toys play an increasing role in providing the child a substitute for real experience and give them what Barthes has called "an alibi of nature," we will need some measure of the extent to which this pervasive influence controls and dominates the minds and times of children.[1]

Children's Play Explanations

We open this inquiry with the same children whom we have already asked about toys. There are 51 girls and 21 boys responding. (See tables 12.1 and 12.2.) We saw that their toy choices, although individually quite diverse, were nevertheless almost entirely within the parameters of the modern market situation. This time we asked them about their favorite ways of playing by themselves or with others. What we wanted to know this time, is to what extent their *toys* dominated their responses. Seeing we have already asked them about their toys, we would expect them to be influenced by that earlier question and to think of toys first in the response to us. The result therefore should overestimate the effect of toys, not underestimate it. And indeed we note that toys are mentioned in a majority of the children's responses, and with the younger children of two, three and four the toys sometimes seem to contain the whole story. But looked at as a whole, what strikes one about these responses to their favorite way of playing is how the toys are only a means to some larger imaginative representation.

When these children speak of their toys it is usually a part of some invented or imaginative domain. Their notions of play are certainly not limited by the toys and in most cases the toys are reduced to agencies of their own activity. Looking just at the two- to four-year-olds, for example, one can see evidences of the types of activity listed in Table 12.3. Also one notices how there is often a mixture in the same account of play (pretending), of construction (mastery), of art work (drawing and imagining), of taking things to pieces (exploration). They flow into each other. The bulk of the examples received, however, though not all listed, represent various kinds of pretending.

Collections are mixtures of imagination and mastery and, given our earlier statement that the bulk of books about toys have to do with collections, we might presume that one basis for all that activity lies perhaps in the early childhood experiences that are being described in this chapter. Some toys become so important to many children in the formative years of their lives, that later concentration on these as an important part of leisure life may not be surprising.

Performances are forms of mastery enacted for or by others. Once again, like *mastery*, this is not simply play even though it may involve "plays." The use of the word "play" as in play music, or theater plays, however, involves forms of mastery involving

Table 12.1 WAYS GIRLS PLAY BY THEMSELVES AND WITH OTHERS

Three Years Old

1. She was interested in the Fisher Price Play Family Village, a colorful model of a village that has a fire house, theater, post office, police station, garage, and barber shop. It includes a police car, mail truck, and bridge, as well as figures of men, women and two dogs. She manipulated the people to all sit on the bridge. She mailed toy letters in the post office mail slot. Then, "We take them out"; she smilingly removed the letters from the post office, and "They go bye-bye"; she put them in the mail truck.

2. She went to a set of twelve wooden alphabet blocks. Slowly, with care and concentration, she arranged them touching one another in a two-layered closed configuration, which she said was a house.

3. She has one doll and one stuffed toy that she often talks to. She tells them what she's been doing and if she had had a bad experience, e.g., a shot at the doctor, she will tell the doll and will also reenact it, with herself as the doctor. She likes to be in the adult role, e.g., mother, teacher, etc., and seems to get out a lot of her frustrations and aggressions onto the doll. "You naughty doll, I said you musn't do that." Spank, spank.

4. She likes to make up games with her dolls such as "mommy and daddy" where the dolls take on the characteristics of her parents and little brother, and she divides her play area (the porch) into a house. She plays "doctor" with her dolls. The dolls get sick and she becomes the doctor and "makes them all betters." She also likes to play with a red truck which she calls her ambulance. She plays the part of the driver and pushes the truck around to all her dolls, then she pretends to be putting bandages on the dolls where they have been cut.

5. Upon noticing a plastic baby doll, she placed the blocks in a circle around the doll. "Dolly is in the house." When asked where Dolly's mother was, she pointed to her own mother.

Four Years Old

1. We played with her Cookie Monster puppet. She gave me the puppet and started to feed it cookies, then a series of vegetables, each preceded by the question "Do you want this?" Then she said that the Cookie Monster got sick and she had to take his temperature and blood pressure. She asked her mother for the thermometer, but her mother explained that since it was made of glass it would be better not to use it. So instead she pulled out all her paint brushes and one by one put them into the Cookie Monster's mouth as I read off the number on the paint brush (six indicated a high temperature). The blood pressure machine could not be found, and so she began to give the Cookie Monster medicine in the form of a bunch of tiny colored pellets. Then she pulled out a series of plastic tools, i.e., hammer, chisel, screw driver, wrench, etc., and started to "fix his teeth."

2. Doll play. Involves both the paper dolls and grown up lady dolls. Baby doll play involved a baby-sized doll, complete with cradle, stroller, clothes, bottles, dishes and revolved around waking baby up, giving morning bath in bathroom sink with soap and using mother's lotion and powder. She delighted in filling the doll so full of water that it spit back and she would do this repeatedly.

3. Eggscitement game. You put all the marbles in the eggs and then you close the eggs up. And then you put them in these holes here. If you have a broken egg, then you get one of these things and you put it on this. If it lands right on there, then you

Table 12.1 (*Continued*)

open it up and take the marble out. This is my favorite game. (Observer didn't understand how to play this game, neither did the mother. Yet the child knew exactly how she played it, and she's working on teaching her little sister now.)

4. Child's father made a toy consisting of switches that light up little light bulbs. Child is of a mechanical nature; she plays with her father's calculator and with any tools he lets her handle. When he works in his workshop she plays right alongside him with the tools. When he works in the garden, she helps him there; she planted all the seeds in their vegetable garden this year.

Five Years Old

1. I like the play telephone. I ring the telephone and pretend I'm talking to someone, then I hang it up and I go ring.

2. I play with Tutti, my favorite doll. I pretend that Tutti and I are going on a picnic with grandmother, and I pretend that Tutti can play the piano.

3. The following four examples are of a little girl with Indian parents. Her father is at the U.N. She is very shy and rather isolated.

She plays extensive house games. They include not only her doll, but cooking and playing the role of mother, while her younger brother plays the father. Occasionally they swap roles. They have a doll's house which they use for these imaginary activities. The father normally leaves for work, while the mother pretends to take care of the children.

Imitates her mother in taking care of her doll, bathing, dressing her. Puts dolls in buggy and takes her for walks around the room in it.

Plays with doll, dresses her in different dresses and combs her hair. Spends a lot of time combing her own hair, and is particular about her clothes and whether the colors match.

Plays cards with an imaginary friend. It is a pack of alphabet cards, which she sorts into piles and then keeps resorting and dealing them out. It is more for the pleasure of handling the cards than an actual game with rules.

Six Years Old

1. Chalk board. I ask my pretend students what something is, and they have to answer it. I call on one of my students and they have to answer one of the math facts. Sometimes I use my biggest doll and my favorite doll and I use my littlest dolls. Sometimes I sit in a chair at my desk to play part of the school. Sometimes I use a pencil and paper. With the scoops. Where you have a scoop, you can put a ball in it. Then the person with the ball in it throws it up in the air and the other person catches it, etc. Whenever you want to stop, the person puts the things back and then they get something else. The ball—you play catch and I bounce it.

2. Ice skate. If you skate around three times, you're the best in the world, or four times, better than the best in the world. It means happiness, because you are very good at skating. Sometimes I jump rope when I skate.

3. Drawing and etching in clay. Likes to draw people, houses, flowers and animals. Carves "designs" in the clay. Designs are things that aren't anything really, but just nice to look at. Likes drawing rather than coloring books.

4. Doll's house. With furniture and people. I imagine different situations. My mommy and daddy are sick. I have to go to get the doctor. The doctor comes. He looks at Mum and Dad, tells me to get the medicine from the store, and in the end I make them better.

5. Spends a long time playing with the treasures in her treasure box (30 minutes to one hour). There she keeps her candy, tiny dollies, change purse, castanets, and any new thing she gets or discovers. She likes to "look at the things she has." "I like it because it is fun. I can brush the doll's hair [there is a doll sitting on top of the box]. I can empty it, look at all the treasures and put them back in." Asked whether she imagined that someone was there playing with her, she said "no."

6. Bean bags. Large. "You can sit on it, change the shape, jump on it, cuddle it, pretend it's a cat and pretend it's a boat."

7. When I feel sad, I pretend I'm a little cat, and I'm hungry. And I can't find any food until Gabriele or Mum comes and gives me some and then I'm betters. If I'm happy, I like to pretend I'm a dolphin jumping all over the place.

8. On stuffed animals. "They are wild animals and they live in a forest. It's dark and they go to sleep with me. I throw them down [from the top bunk] and pick them up. I put them in a blanket and hide them. I sit them on my bunk bed. Big bear is in a corner and Lion is in another corner. They're both fluffy and feel good. A stuffed birdie. I bring him to bed. He flies around and sees other birdies. He says 'cheep-cheep' and that means Hello. He says 'cheep! cheep! cheep!' to the other birdies'—that means 'How ya doing.' He talks to me. He says 'Good night.'"

9. I like to play with Shirley Temple. I like her to sing and dance. She sings the same songs I sing at school. She's funny. She has curly hair. Sometimes I have to comb and brush her hair. Sometimes I have to teach her numbers. Sometimes I have to give her a bath, and sometimes she watches TV.

"I play teacher and I play mother. I play with my big doll named Chrissie. I comb her hair. I put on her clothes, shoes, socks and sweaters. She goes by her friend's home. [Where?] In my room. I let her say goodbye. She takes a nap, eats in the kitchen. She looks at TV. I carry her in the street. She goes for a drive in the bus. She goes to school. She goes to church. She buys food for me. She comes outside and we have to get pictures, lamps and chairs with our father. She goes in school and tells the teacher what to do with it. She hangs up my clothes and her clothes. Her grandfather takes her by MacDonald's. He comes by my house. Sometimes she goes by herself. I walk her to the corner by school. She goes by her babysitter. She goes to the park. She comes home for lunch and goes back to school. I cook lunch. She asks me, "Can I bring a friend?" Her friends stays till four o'clock. I like to play with my tiny dolls. They are sisters. We go to a party. I play husband. My husband is Roy. He lives across the street. Sometimes he comes by my house. My dollars are Cathy and Cindy. They are my daughters. I carry them to church."

10. Doctor kit or nurse things. Well I could play listen to your heart, play X-ray and play bloodpressure. I could pretend to look at somebody's finger. Well this is the easiest, look inside—then I'll figure it out. Play scissors for cutting nails. And play medicine. I use this tray. Nurse kit. They were supposed to give me a hat or an apron but they didn't give me a hat or an apron. Well, the nurse is in with the Doctor thing and I mix them, sort of.

Table 12.1 (*Continued*)

Seven Years Old

1. Well, one time I did a puppet show like Sesame Street with all my puppets—my little ones, not my big ones. I did a funny puppet show but it came out yucky. The stage kept on breaking down, the curtain kept falling. There was no room for me to sit. Everyone saw my face. And no one was in the theater except Grandma.

2. She sometimes pretends that she is hiding under the bed from her dolls and asks them to come and find her. When playing with her dolls, she pretends that she has heard someone open the door or call on the telephone and would then ask the doll, for example, "Did you hear the telephone ring? Someone wanted to talk to me." Names referred to are usually Black Giant, Belvedina and Ballerina.

3. Blocks. I can build all sorts of things with the blocks. I can see which blocks are bigger and taller. Sometimes when I become angry, I kick them around. But I like to stack them up real high and build a big castle, and then pretend I own the castle and all the people who live there.

4. I like to listen to the record player, especially when I sit and listen with my friend from the next yard. Sometimes we say silly and funny things on the tape recorder and when we listen again it sounds real funny.

5. Lite Brite. Well, I play school with it. I pretend somebody helps you. You pick two people and they tell you where to put it and you tell them where to put it. The pegs. The teacher picks one person and tells them to pick two people. The kid says, "Go back to your seats." Then she starts to do it all over. I could be a boys or a girl. Are girls more talented than boys?

6. Baton. Well, I practice doing figure eight. I do the twist, use one hand and then the other. Sometimes I do shows with it. I stand on the couch so I could be higher like a big girl. Sometimes I count to the highest number.

7. I just pretend I get a baby. I make things for the baby, make a bed. She gets a check-up and she goes to school when she gets to be two. Then she can write her name.

8. Play teacher. I just pretend some people are bad. We go to music. With my paper I make work. Have to fill in the blanks. Make-believe desk with a step stool with pillows around it for chairs. Use chalk board. Sometimes I just pretend. I say, "The cat in the hat was in the blank." They have to tell me the right word. Once I erased my puzzle books and other books from first grade.

9. Sometimes I play monster games in school up on the roof, Martians. And they capture us, and Steve does karate up on there—the Karate Monster. And sometimes we play Batman, but we never finished the game. We never knew what happened. Cops and robbers.

10. She talks about her dolls:
This is a Paddington Bear, number one. [Paddington Bear is an English storybook character.] And there's a little sign on it and it says, "Please look after this bear, thank you." And it says on the back of the sign, "Darkest Peru to London, England." And my little fluffy little elephant, number two. And I bring it in the living room and he's so soft you can even sleep on him or sit on him. And Holly Hobby, number three. It's so cute. Holly Hobby, the rag doll, the original Holly Hobby. And here's my little bunny, that's number four. He comes with skis—in here—and poles. Well, these are all my collection of Mego dolls, that's number five. (These

were her five favorite toys.) Paddington Bear is sometimes in the clubs but I had him before I invented the clubs. I play with him and he's in my house games. And once I danced with him in the living room (demonstrates while singing her own accompaniment). My Wizard of Oz dolls. I have Emerald City in here so I put them in it. Oh, Holly Hobby. I just got this Saturday, so I didn't get to play with her. I just took her places. I took her to the Lower East Side, and once I took her to school. And I'll take her tomorrow to the movie. I get a string and tie it onto my elephant and I ride him. And I sleep on him and put my feet on him. Let me show you what I do with Holly Hobby. I can sit her down. And look at what she's wearing. She has old-fashioned underwear. You know, the long old-fashioned panties. And she has a patchwork skirt and a little bonnet. And she has braided hair and she's wearing bloomers. And she has a tie in the back and shoes and socks and I nurse her and give her food. I've really only had her for two days so I haven't done that much with her yet.

Eight Years Old

1. [This little girl is of Indian parentage.]
   Asked about favorite toys. "Toys? I don't play with toys? I'm eight years old!"
   Talking of trick or treating, "I will come home and go trick or treating with my sisters but we're not going to dress up—that is for babies. We are not even going to collect candy, only money for UNICEF, because Mama says we have too much candy in the house already."

2. She has a "Slam Book." From a group of kids, each kid is assigned a number. One is picked and that kid is asked all sorts of questions like, "What's your favorite food, favorite clothes, who do you love, etc." They write this all down and go on to the next kid. The book is a collection of things about each kid.

3. Plays nurses with dolls. She covers them up with a blanket. She checks the temperature with a thermometer and puts them to sleep.

4. We make believe. Like my friend Claudia is on one corner, Michelle is on another, Francesca on another. We make believe we're running away from our families and we run into the woods and we meet people in the woods and they ask us to live with them and then sometimes we make believe we say yes. Then our parents go looking in the woods and they find us. Then they get mad at us and we explain why and we go home and never run away again.

5. Paint and draw. In my head I sometimes think I am a special person for drawing so good, so I'm not really only Francesca, I feel like an artist. I think I want to be a famous person who draws good. Sometimes I look out the bathroom window and I see half the house. I draw half the house and I make the trees in the background.

Ten Years Old

1. I play cards lots of ways. One game I call poker but here's how I play it. I deal myself five cards and put five on the table with their faces up. I turn a card over from the pile. If any card in the hand is higher than the cards on the table, I put the hand card on the table. If a king is on the table, I put it back in the middle of the deck. If there are no higher cards in my hand, I use the cards in the deck. When you take off a king, you can put an ace down if you have one, or put a card down from the pile. If no card goes on, I cheat and put it into the pile and keep on picking till I get a card that goes on.

2. I like to talk to my animals [stuffed]. I tell them what's bugging me mainly. I tell them what has happened to me that day. I like to get it out of my system, and I play they are listening to me. [Do they ever answer you?] Sometimes they tell me what

Table 12.1 (*Continued*)

the problem is, or they say, "Good for you," about what I did. Mostly Patrice, my mouse, answers because she's the wisest. The animals take care of themselves. They're old enough.

3. I also like to play Roomie with my dolls. I don't play with the baby dolls anymore. I play with Dawn and Barbie. I play I'm older and live with a roommate in college or something. We're friends or sisters. I only really dress them and do their hair styles alone. Mainly I play with these dolls with friends.

4. I like to pretend with my bump collection. I have about 20 magnetic bumps. I call them Mr. Whatever their name is. Like Sheriff or Mrs. Nurse, and so on. I have two kings. I pretend they are all in a kingdom. I even have a baseball player.

5. I like to pretend I'm on a TV commercial. Sometimes I'll go to the pantry and talk about the foods like on TV. I'll say all the good things I can about it.

6. I mostly only play with my dolls (not baby dolls) with friends. Then we really can play roommate. We are going to school or work. We go on hikes or swimming (the dolls do). Sometimes we are teachers. We use the doll house and furniture and stuffed animals too. Sometimes we use different rooms and things in the house. For instance, we pretend we go to a movie, and we watch TV a while. Sometimes we pretend we're in a house by sitting under the table. A big plant can be a tree outside. The kitchen is a restaurant. If we go somewhere in the car we take a doll and pretend the car is a taxi.

7. If the friend I am playing with also has a bump collection, we pretend kingdoms together. It's really great when you have a lot of bumps in the kingdom doing a lot of different things.

8. Barbie. I make believe she's going on a trip. Or I play house—I get a shoebox and put all her clothes on one side. Sometimes I play she's going to a restaurant, going swimming, or sometimes that she's just sitting around.

9. Tag games. Hunter and animal. A group of children are "hunted" by another child and when caught, put inside a ring of a hoola hoop which served as a cage. The caged child is then "it" and tries to capture someone else with the hoop. Rooster fight. All the children have to hold one foot in their hand and try to get another child off-balance to the point where the child lets go of his foot and then is out. The last one standing is the winner. Anyone who lets go of his foot has to do something silly such as kiss a tree or house, as voted by the others.

Eleven Years Old

1. She likes to read and play the piano, fool around with her friend. They'd been building a city out of boxes. Create dramas using stuffed animals. And use the Playskool blocks. Play with a village of tiny houses and small plastic creatures.

2. Family tree. It's play-acting. Mother gets deserted or divorced. There are sibling fights. Some little kid asks grandpa about the birds and the bees. Grandpa has a heart attack. They rush him to the hospital. The characters in the play are Amy, Ophi, Katah, Crystal, Merli, Uncle Raymond, Grandpa, Jimmy, Aunt Susan, Aunt Folo, Diny, Danielle and Ali, who are sisters. [This made-up play seems to be an ongoing thing at her school. As more people join, they make up more characters.]

3. War games. Each person is a country. My brother is England. I'm France and Jennie (a friend) is Israel. We hide in the room. Each person has a plastic machine gun. Wear safari helmets or another kind of helmet. We throw bean-bag pillows like grenades. If we hit someone on his helmet, it doesn't count. If his body is hit, it counts and that's an explosion. Then he has to stay down for five seconds. If someone throws a grenade and misses, he must get it. If he gets shot with the machine guns, he has to stay down for 20 seconds. If two people are down, you win. We pile up boxes and hit them with grenades.

4. She made an "ocean in a bottle." This was made by mixing alcohol and turpentine in a bottle with blue dye. By tilting the bottle in various positions, the movement of the liquid simulates that of the ocean. She simply enjoys observing it.

5. She records her favorite rock singers from television (John Denver and others). She plays with her parakeet by letting it loose to alight on her body, records its voice, talks to it and plays the guitar for it.

socially staged occasions. Like play proper they involve the setting aside of everyday reality in one sense, and yet involve intensive and very real skill in another. This is also true of games, which involve special signals as to their irreality (playing fields or playing boards), but unlike play, also involve mastery of many very specific skills. Within play itself these skills can be simulated; they need not be real (cowboys with guns). The development of play with age seems to involve a melding of both mastery and play into new forms of performance (music, dance, games), which may even become institutionalized at later ages (as in sports, theater, ballet), in which case the larger community, not just the play group, becomes implicated in the events.

These largely descriptive generalizations are supported by recent experimental work on the extent to which children's play behavior is dominated by the nature of the toys which they use.[2] What has been found is that the more children play together, the less they rely on any particular toys for their activity. With increasing play experience their ideas begin to take over from the objects. Not surprisingly, young children (two to three years old) playing with toys are more likely to be restricted by the character of the toys than are older children. Indeed the very realism of the objects for very young children seems to make it more possible for them to be imaginative.

Table 12.2 WAYS BOYS PLAY BY THEMSELVES AND WITH OTHERS

Two Years Old

1. He imitates the behavior of parents. Mother returns from having taken a shower in another room. He asks, "Where were you, Mom? Meditating?" Then he demonstrates how his father meditates, sitting with legs crossed in a lotus position, eyes closed, head tilted upwards.

2. Acting games. At dinner father has a finger in his mouth. Child puts his finger in his mouth, man scratches his head, child scratches his. This continues through at least 15 more movements with mounting complexity, concentration and delight.

Three Years Old

1. When asked his favorite way of playing by himself at home, John promptly went to a tree-house toy, which was on the sofa in the living room. He said that he liked that toy the best. This tree-house toy is the type in which miniature egg-shaped dolls can be placed in the house and/or by means of a pulley-and-basket arrangement can be lowered to the base of the tree (the floor) or pulled back up to the house on top of the tree. John immediately declared that the three dolls were a mummy, daddy and girl. When asked what he could do with the toy, he at first simply changed the toys in the basket and raised or lowered them by means of the pulley. When pursued with the question, "What else can you do with it?," he threw the basket on top of the house in apparent desperation. Then he turned to watch TV.

2. He has a set of boxing gloves, and wears them a lot. Likes to imitate his mother and her judo lessons. Punch, kick.

3. I like to fix machines. I like to play with machines [i.e., pretends to be an electrician]. He has two machines he can plug in. One is a battery and tube tester. The other is a signal generator. Both are broken, but when he plugs them in, a light goes on. He can only do this when he's supervised, so he drags them all over the house, following his mother or father. He pretends also that the signal generator is a gasoline pump. Pumps gasoline into heating duct, his cars and trucks, etc. (Father, with a B.A., is now in technical school.)

Four Years Old

1. Hobby horse with springs. Rocks fast on the horse. This makes it stop. Whoa. Whoa, horse. I'm going faster. Going to see Indians. Whoa, horse. Got to get a drink of soda. (Gets off and goes to closet.) I'm ready, horse. I need my cowboy hat. (Comes over to the bed and puts on Indian head-dress first. Holds up hand.) How! (Puts on the cowboy hat and shoots his finger at the observer. Runs out of the room.) Sheriff. I'm coming back. (Gets the sheriff badge.) Now I'm the sheriff. Giddy up. Whoa, horse. Horse gets a drink. (Gets some imaginary milk for the horse out of the pipes of the base.) Good horse, I'm gonna be hungry in a minute. I'm hungry. (Gets off, takes off his hat and climbs on the bed.) I'm gonna have something to eat. I'm tired, too. I'm gonna take a nap. I hear a sound. (Calls kitty. Pats the cat.) Say, Shadow's here. (Writes imaginary words on the pillow.) Dear Shadow. I get on your bed. (Kisses the kitten. Back to the horse. Pours milk for the horse twice.) Got quart of milk for horse. Good boy horse. (This time doesn't mount the horse, but climbs on the bed banister. He is constantly substituting one object for another in his play.)

Five Years Old

1. Father is a dental technician, so child has access to bits of material. He collects bits of old wax which he softens up over a Bunsen burner and molds the wax into different shapes which he uses in his airport play.

2. He plays with cars. He prefers racing cars. He got a blue car which he keeps in the garage and he proceeds to dismantle the car and show the investigator different parts of the car, such as the engine—wheels—steering wheel and so on. He pushes the car along the driveway, mimicking the sound of an engine maneuvering the car through different obstacles. He does the same thing with his airplane and has indicated that he and his father are building a model plane together. Wayne works wonders with his toy planes. He first constructed a makeshift airport with his building blocks. Before "takeoff" he announces, "Ladies and gentlemen, this is your pilot." He goes through the motion of engine warming—taxiing along the runway and then lifting plane, he moves along the driveway with the plane in the air.

3. Sometimes I push back our covers on our beds and drive cars on them like cops and robbers. In school I use blocks and build houses and pretend the little wooden men get invisible when they drop through the building. At home I pretend I'm driving people on a vacation up and down my ramps. I build with my socks. I make houses and buildings and jails. My favorite toy is a matchbox car. It separates and you can see the motor. You could pretend that's a motor. Race it. Pretend it's flying. You can open it up.

4. Matchbox cars. I like to make ramps with wooden sticks and slide my cars. I will sit in my bedroom and build a garage for my matchbox cars.

5. Mod Squad. You need three people. When Nicky is here we play space urchins. We play that a new way every day. Train set. We have an electric circle and the train can go either way. Or we have two tracks and have races.

6. Play Batman. Pretend you're in Gotham City. The bedroom is the bat cave. The table is the bat computer. That old gas station becomes the question machine. Before we're Batman, we are Dick Wayne and Bruce. We jump down from the bed and pretend it's a pole.

7. Lone Ranger. We use bars for guns. Pretend to ride horses making horse sounds—noises like the horses' hooves make. When we fall off, we roll around on the floor.

Six Years Old

1. Star Trek Enterprise. I'm pretending I'm beaming the men down. They have a transporter, and it's fun. Magic Sharp Shooting Gallery. This is part of Star Trek Enterprises. It has little magnets on the end and you pick up the balls from the other side, and you try to hit the target. Matchbox cars. I play with them in my room. I roll them around on the Mickey Mouse rug or on a magazine. I pretend they are a street or a road. I pretend there are people in the cars.

2. Playing with planes. No manufactured planes, but makes planes by folding paper. There are two types, regular and jet. The only distinction is that the jet goes faster. He flies them around the house mostly and sometimes outside. On one occasion, an uncle of his picked up Tommy and flew him around the house. Tommy was so delighted that the next day he made around fifty paper planes, which occupied him for a number of hours. In addition, he gave that uncle a number of the paper planes as a present.

Table 12.2 (*Continued*)

3. Underdog or Batman. Recreates some of the adventures he sees on the TV. He does it by rescuing someone in trouble.

Seven Years Old

1. I play with my doll, Dr. McCoy. I make things to put him in and then play with him. I make him fight with my other dolls.

2. I play with Lego. I make garages and put my cars in them. I build lots of things—boats, space ships. I make TV's with them. Maybe a few more things. Cars. I pretend when my cars are in the garage that the cars are boats and go in water. I make a tent or house or a boat with pillows and blankets. I'll play in it or around it. I can change it during the game. I play with my sister with it. I can play with Dr. McCoy with my friends who have other dolls, and make up stories from TV.

3. Drawing all kinds of things. I use lots of pencils. Lots of crayons, magic markers, Craypas, hole punchers, erasers, pens, etc. I can make colored designs with two pieces of paper. First I fold one of the papers and cut out a design, then I spread it out, put it on top of the other paper and staple them together. With crayons or Craypas, I color the cut-out design. After that I lift up the paper and I see a colored design. I am planning to make an enormous picture, as big as a room. I will tape it across the whole wall. It would make one big poster. I'll draw a comic strip on it.

4. Airplane. I make it fly around. It has a first-aid kit and a hose inside the plane. It has a ladder and a basket with a string on and you hook it on when you want to go down. It has a hook on it, and it lets you go down. Riccochet Racers. It has a car inside the gun, and you shoot it and then put it back in. I also make something with wood that shoots off it.

5. Legoes. They stick together and you make buildings with them. I make tall buildings, skyscrapers. You can also make bridges and cars and people. I have three sets of them.

6. [This boy comes from a severely deprived Puerto Rican family. There is no father, mother is on welfare and unable to cope with her family of three. This boy assumes the responsibility of shopping and looking after his younger brother and baby sister. Father came back and stabbed the mother.]

The only toys the family possessed was a stuffed rabbit, a ball, a rope and some cards. He danced with the rabbit, he wrestled with the rabbit, then he went and put his rabbit on his brother's head as he was getting ready for breakfast. Brother plays Kung-fu with the rabbit. They have an enemy fight between the rabbit and a pillow which the brother has picked up from his bed.

Takes a rope out to the fire-escape and starts to swing, he makes believe that the fire-escape is a park with swings in it. I play ball by myself in the partment. I go to the fire-escape and I swing. Louie (his brother) and I play cards on the fire-escape.

Nine Years Old

1. Manipulation of a slot game, which is related to a marble machine with a lever which propels the coin-like pieces up and around the upright board and then they fall in various slots and directions with several possible outcomes. Child says, "Well, I'll show you, I fix it up sometimes. See, this cardboard on the back comes off, there are all these things that work the parts in front. See, I just stick my little

hand back here sometimes, and when they don't know it, I just push a button and all the pieces fall out. Hold it, I'll show you another one. I'll fill the front with all the pieces. See, it takes nine for the jackpot [he puts them in] and then if I do it like this . . . you don't even know it, but they all come out. See . . . did you see? I put my hand behind and made pretend I'm shooting." Child had never told anyone of his manipulations of the toy.

2. My friend has Star Trek, Emergency, Super Hero, and Planet of the Ape dolls. He has lots of their equipment too. We used to play with Planet of the Apes, but not so much anymore. Robbie, my best friend (9) and I go over to Mark's house. Mark (8) has the dolls. We pretend Star Trek and make up things about the future and about outer space. Sometimes it's something we've seen on TV, but most of the time we just make up things. We do the same with the Emergency dolls, about doctors, patients, and paramedics. One of us is the patient, one is Rampart (hospital) and one is Car 51 (paramedic).

3. Sometimes I make up card tricks. I made up this one. Beforehand I set up the deck by putting three cards from the same suit on top of the deck and three cards (the same ones) from another suit on the bottom of the deck. Then I ask the person to cut the deck in half and pick a pile. If he takes the one with the cards on top I tell him to deal out cards in three piles from the bottom up. If he takes cards with the set-up on bottom, I tell him to deal out three piles from the top. I take whichever pile he doesn't and deal out the opposite way from him. Then tell him take his top card from each pile and put it in his pocket. I do the same. Then I show him my cards, and when he takes his out, they will be the same.

4. I like to build card houses. (He is very fond of all card games.) Sometimes they grow so big, they make whole cities. My mother makes me take them down when I am not playing with them if they cover the floor. I take a deck of cards and put one card down. I try to guess if the next card is higher or lower. If I'm right, I get a point. If I'm wrong, I don't get a point. If I'm more than four points higher or lower, I lose a point. If it's a deuce, I skip it and put it on the bottom and go on to the next card, cause there are no lowers. With an ace, there are no highers. (This game, he made up.)

Ten Years Old

1. This boy is an only child of divorced parents. Mother works, so he is alone a great deal. Watches a lot of TV. Mainly serials about space. While watching, he likes to play with his model spaceships. He uses things in the home for a background to this play. The rug is a landing and take-off spot for the spaceships. Water in the bathtub is a lake; he ties strings to the spaceships to pretend they are flying, fighting, etc. He pits the Vulcans against the Klinons against the Romulans. (His next favorite is his two gerbils in a big fish tank.) He freezes a certain metal ship, and then thaws it out, and makes up stories about the people inside. Pretends it thaws out one thousand years later. He also tapes these space TV shows, and Kolchak. Then he cuts up the tapes, puts them back differently and has his own show. All games with other children, hobbies, etc. center around spaceships.

Twelve Years Old

1. Skulley's. There are two of these games etched onto the asphalt in the street. It's a series of boxes numbered 1 to 13. They take bottle caps and have to knock them from box to box and then go backwards from 13. If your cap hits the person's cap you're playing against, he's out. Last one in wins.

Older children seem to need less realistic supports for their imagination. In general, as children grow beyond the ages of two and three years they increasingly use objects to extend or supplement their imaginative programs, rather than the other way around. The older the age the less they care about object suitability for the task in hand. Children tend to take objects to carry out their imaginative tasks and transform them to make them suitable. Even so, given a choice, they will pick an object more like the idea they have in mind than one which is unlike it. But what all this means is that the plans of the playful imagination dominate the objects or the toys, not the other way around.

In this we find the seed for the prejudice that many persons have that children should have "open" toys which can be used in any which way. The prejudice comes from the fact that older children do this anyway. But it ignores the developmental fact that the youngest children are actually helped to play by the realism of the toys that are available.

And the conclusion of both the experimental toy research and the descriptive materials presented above, is that toys as such do not dominate play (whatever their nature may be) except in the earliest stages of playing with someone else, or at the youngest age levels. Rather, the toys are transformed by the experienced players to suit their own imaginative convenience. The toys are an agency for the imagination; they do not make the imagination their victim as is implied by much intellectual prejudice.

From this perspective the modern plethora of toys may not in fact crowd out the growth of the mind or even overwhelm it; it may simply provide many more vehicles for its extension. This is not to say, of course, that when toys and television programs are complementary that toys may not have a key role in the children's own imaginative representations of these very programs. Children will obviously take what fits if it is available.

In my own childhood the dominating imaginative schemas throughout childhood were derived from cowboy films, and we used any old hats or sticks and occasionally water pistols for our weaponry; or when we played at King Kong we used plasticene simulations of the villagers and of Kong himself,

Table 12.3 EXAMPLES OF KINDS OF CHILDREN'S ACTIVITY

Pretending	*Mastery*	*Exploration*	*Imagination*
Beaming the men down	Making planes from folding paper	Manipulation of slot machine games	Drawing all kinds of things
Recreates TV adventures	Building ships with Lego	Box of treasures (a collection)	Etching in clay Planning pictures as big as a room
Wrestled with stuffed rabbit	Swings on fire escape		Pretending to be and artist
Plays Star Trek	Builds card houses		Reading
Plays telephone	School play		
House games	Ice skate		
Doll's house	Baton-twirling		
Pretend I'm a cat			
Being a TV commercial	Ocean-in-bottle		
War games			
Performances	*Games*	*Collections*	
Puppets	Skulley	Treasure box	
Listening to performances (record player)	Slam books Card Tag	Bump collection Stuffed dolls	
Play piano			

giving the villagers pins for spears and tying Kong to a block with string. Modern Star Trek games do not seem to be too dissimilar in their configurations of immortal combat.

The Toy as Identity

We have made the case that despite the apparent hegemony of toys in much of today's world, a real case can also be made that usually the child players control the toys rather than the other way around. This is what we have meant by the toys as agency. They are the agencies of the players. They are controlled rather than controlling.

In some cases an even stronger case can be made that particular toys enter into the lives of some children and become, as it were, central to their identity. In the early section on families we have seen how certain soft toys assumed a central role as vehicles of affection or consolation. We have noted the literal obsession of some youngsters with video games. And we have seen the attachment of some parents and some children to particular "educational" games often widely interpreted to include Monopoly and Etch-a-Sketch. Our attention was drawn to these possibilities by the account of Seymour Papert, a Professor of Mathematics at M.I.T., in his book *Mindstorms: Children, Computers and Powerful Ideas.*[3] He writes:

> Before I was two years old I had developed an intensive involvement with automobiles. The names of car parts made up a very substantial portion of my vocabulary: I was particularly proud of knowing about the parts of the transmission system, the gearbox, and most especially the differential. It was, of course, many years later before I understood how gears work; but once I did, playing with gears became a favorite pastime. I loved rotating circular objects against one another in gearlike motions and, naturally, my first 'erector set' project was a crude system.
>
> I became adept at turning wheels in my head and at making chains of cause and effect: "This one turns this way so that must turn that way . . . ." I found particular pleasure in such systems as the differential gear, which does not follow a simple linear chain of causality since the motion in the transmission shaft can be distributed in many different ways to the two wheels depending on what resistance they encounter. I remember quite vividly my excitement at discovering that a system could be lawful and completely comprehensible without being rigidly deterministic . . . . Slowly I began to formulate what I still consider the fundamental fact about learning: Anything is easy if you can assimilate it to your collection of models. If you can't, anything can be painfully difficult . . . I remember that there was *feeling, love*, as well as understanding in my relationship with gears. I remember that my first encounter with them was in my second year. If any 'scientific' educational psychologist had tried to 'measure' the effects of this encounter he probably would have failed. It had profound consequences but, I conjecture, only very many years later . . . .
>
> The gear can be used to illustrate many powerful 'advanced' mathematical ideas, such as groups or relative motion. But it does more than this. As well as connecting with the formal knowledge of mathematics, it also connects with the 'body knowledge,' the sensorimotor schemata of a child. You can *be* the gear, you can understand how it turns by projecting yourself into its place and turning with it. It is this double relationship—both abstract and sensory—that gives the gear the power to carry powerful mathematics into the mind . . . the gear acts here as a *transitional object*.
>
> A modern-day Montessori might propose, if convinced by my story, to create a gear set for children. Thus every child might have the

> experiences I had. But to hope for this would be to miss the essence of the story. *I fell in love with the gears.* This is something that cannot be reduced to purely 'cognitive' terms. Something very personal happened, and one cannot assume that it would be repeated for other children in exactly the same form.

One might argue that if there is a justification for the toy plethora today, it might well be that, ignorant as we are of toy effects, it is the only way we know how to let each child choose what will be his or her "gears"; though one might well hope that there are more intelligent ways of allowing fundamental feelings and fundamental selections of objects to enter into a love relationship with a child than the system of over-production currently in use.

From the point of view of this chapter, however, what emerges from the evidence we have been presenting and from this anecdote by Papert is that within the riot of toys what may be happening is the adoption of an attachment of a passionate sort that is critical for the construction of the mind of the explorer, masterer, daydreamer, imaginer and player. If one looks at what children regularly do with their favorite toys, one is impressed with the fact that a toy or tool can sometimes become an *identity* around which the child organizes his or her actions and concepts of the world.

The position can even be taken that one should proceed from such a theory of toys as identification, back to the other alternative ways of thinking about toys which we have been detailing in this section, and ask as the more central question, what evidence is there that the child organizes the cognitive world in terms of central emotional attachments to one or more objects. With these children confined to their toy worlds (and kept out of our unsafe ones), to what extent do they use their toy attachment as a kind of *theme-and-variational organ* to check out that world in exploratory, masterful, imaginative and playful ways. We know, for example, when children first come to make up stories in their third year, they generally create those stories around some central action of some central persons.[4]

"The boy fell down
The man fell down
Mommy fell down
I fell down."

Here is a protypical two-year-old story in which falling down becomes an organizing central action. In the drawings of the third year, children also often organize the drawing around some "primordial" circle or design.[5] Two-year-old speech is also often organized around some similar central word and variations (Mommy go, Daddy go, Baby go); the first games of six-year-old children are central-person games in which play is organized around the behavior of the IT person.[6] Given that *theme and variational* phenomena are central in the arts and crafts of the world, it is certainly feasible that this most ancient device for organizing human expression is relevant to a child's own first expressions.[7] Perhaps we should think of toys as having the emotional quality of "transitional objects," the pragmatic qualities of tools, and the expressive compulsion of artistic theme-and-variational phenomena. Perhaps we should think of some toys in the first place as *identifications*.

Informant Examples

Over a number of years I have been collecting play biographies from my students, and I am impressed with the number of times in which factors of their play life are recalled by them as being central to their childhood. Sometimes they refer to their history in competitive games; sometimes to their work in arts and crafts; sometimes to physical sports; sometimes to games of strategy; and sometimes to toys that have been particularly important to them. One often comes away from these biographies with the feeling that the most important thing about childhood in these recollections is the character of the play that took place within it. Still, seeing they were asked to write them as a part of a course in play and games, it is also possible that the responses were biased in this way. All we assert here is the possibility that sometimes, perhaps often, play and games, and even toys, may be central factors in the development of a child's personality.

Among the toys mentioned as central, the soft toys are most often cited, and we have considered some of these descriptions earlier. But there are many other kinds also.

One informant mentions her early attraction for a brilliantly colored plastic butterfly mobile, which used to hang over her older sister's crib. She feels a connection between that early involvement and her current inability to pass by colors without noticing them, as well as her involvement in art.

Another says she had as her constant play companion for many years a toy telephone, which she took with her in the car, on vacations and even to bed at night. She would use the phone in her games of store, and to have conversations with cartoon characters. She associates the toy with her current interest in communication.

Another remembers, as his constant companion, his red wagon. His older siblings dragged him everywhere in it, and later he used it to carry his own toys, and to propel himself along with one leg inside and one out. He got himself hauled by his dog and by other children, and later he used it as his first entrepreneurial venture for collecting empty bottles and returning them to the store, from which he came out loaded with candy with which to bribe others to pull him the four blocks home again.

Yet another recalls her favorite toy as a huge box of old clothes from the 1920's and 1930's with which she and her sister would dress up as famous people from books. Because the dresses all came down to the floor they usually pretended also to be old-fashioned women. She associates her present interest in antiques, in lace and feminine clothes with this early play activity.

For another there is a clear connection between her childhood scooter and her later engagement in motor bicycles. In both cases, with the scooter and with the motorized vehicle there were groups of enthusiasts who supported her in the activity.

Some associate early doll-house play with later neatness and meticulousness in house care. Yet others see in the dressing of the dolls, a prototype for their present concerns with fashion and clothing.

One gives an account of her first white music box with a ballerina dancing on top and her father saying that one day she would be able to dance like that. At that moment and ever since, her sense of her bond with her father is given by that image of the two of them standing and watching the ballerina to the tune of "Oh, What a Beautiful Morning."

I have listed a number of these brief accounts to indicate the great variety and relative unpredictability of toy usage and toy consequence. One need not say that the toy "causes" these later events, only that it was an important mediator of certain attitudes and actions for the child at that time. Anything important is usually mediated in many ways. One gets, however, a more intimate feeling for the great importance these apparently inconsequential toys can have in some of the following longer accounts from my informants. Obviously they are chosen because they give this flavor. There is no pretense here that we know how often some toys have this significance although clearly we suspect it is frequent.

> The Shaggy Dog and the Lamb had always been there. They had been around for as long as I could remember, or rather longer. Admittedly, I had seen old photographs of a veiled cradle ('That was you when you were ve-e-e-ery small') and invariably my Lamb or my Dog would be in it. But that was only part of the attractive aura around them. Whenever they popped up from some box that had not been opened for ages or from somewhere under a closet they were mysteriously fascinating. Even though they no longer appealed to me as playmates, a strange power clung to them. They were ancient; they triggered off an atmosphere from times before and beyond me, a vague physical memory of warmth, safety and indefiniteness. When I was ten, I ran into them again in the basement and secretly put them on my bedside shelf. The guardians of Paradise Lost.
>
> The Froebel box was not dissimilar. We no longer felt like putting cubes in squares and cylinders in circles and the blocks had long disappeared anyway, but the box still smelled of ambivalent feelings—desire and frustration. Even though it never served our purposes because of its irregular and stupid-looking lid, we very often used it in the construction of our building-block models.
>
> Toys, objects in general, and even favorite sports in the house, were charged with a certain 'color'—a residue of memory that never really became explicit but was nonetheless extremely important to me. The toy I most cherished as a child was the one I had for the shortest time. The memory still touches a sensitive string in my heart; the harsh yellow body no bigger than a few fingers, the metallic rattling of its spring and the plastic feet that rotated in and out to make it strut over the carpet: my little chicken.
>
> I was five when I received this precious token from my grandfather. My chicken and I spent one glorious day together, at the end of which it mysteriously disappeared in a haystack, never to be found again. Though the toy itself was gone, my memory of it would, and still does to

a great extent, cause me to relive a whole set of emotions and impressions; pictures of my grandparents' living room filled with adults, feelings of gratitude towards my grandfather and proudness of the new toy, memories of playing in the field and the shock of losing the last gift Bompa gave me before he died.

I want to stress the importance of the emotional connotations of toys because I feel it played an essential part in the fascination I had for my favorite toys and cut across all the functional levels of their use. By playing with Meccano, e.g., I may well have been developing problem-solving strategies and psycho-motor coordination, but the fact that our set had belonged to my father when he was a child, was kept in an impressive, heavy wood box and had a very old-fashioned manual was probably the major reason why I liked to play with it in the first place.

For most of my earlier toys I cherished a deep and almost erotic affection. The Dinky Toy ambulance with real flashing lights I was given on a birthday filled me with a thrill so intense that it almost hurt when I made it flicker in the dark on my shelf every night. And for the little plastic Volkswagen I had never hoped my father would give me (there was no special reason why he should have bought it when I eagerly pointed it out to him on an ordinary shopping trip to the supermarket), I felt such a profound love that I would take it to bed and put it to sleep on the pillow next to me. I prefer to call this feeling a real affection rather than a fascination. There was always a kind of mystical desire to draw the toy towards me, be close to it and incorporate it into myself in some way, a desire that could never really be fulfilled because a thing was a thing and could not respond. Gradually, I think, this very personal attachment to my toys made way for the more creative pleasure in the process of constructing play around them rather than in the mere possession of or relation to them. (*male*)

A solitary play toy of my earlier years had important socialization functions later on. I made a crystal radio set. I kept the radio on a shelf above the head of my bed and would lay awake at night listening. The station I was able to bring in most clearly was a classical music station that broadcast from a few miles away. I learned Tschaikowsky's piano concerto because it was the theme song of a program that went on after my bed-time but before I fell asleep. My parents were not interested in orchestral music, but rather, had numerous recordings of folk songs. Though I never lost an interest in folk music, this toy socialized me, or at least began the process by introducing me to European Art Music. This toy introduced me to other general areas of play and toys: electronic gadgetry (though the radio worked without an electric hookup) and communications and communications technology.

I've been told that my parents gave me *a recorder* when I was three and was able to make melodies on it almost immediately. Be that as it may, my recorder—*qua* toy—became almost an extension of myself, expecially during my teen years. I became very proficient in the recorder, so that at summer camp one year I performed a duet with myself, playing one from each nostril. My grandmother sewed a case for my recorder and I was able to wear it slung over my shoulder so that it hung by my waist. While my duet got me some notoriety I was never a physically competitive kid, nor was I much of a conversationalist. My recorder served as my voice. I could sit by myself and play for extended times and I could play along while others were singing and receive appropriate admiration. I became good enough at the recorder so that I could teach and made some money from it. Not only that, I got my B.A. in music with a specialization in recorder. (*male*)

In relating my play development to my present self, I must first state the most meaningful "game" or activity that occupied much of my early childhood. When all of the little girls on the block wanted to be movie stars like they saw on television, I wanted to be a nurse. My parents bought me *a nursing kit* when I was about two, and this "toy" survived with me for a large part of my younger years. Even back then, I always felt that I might be able to help the sick around me. Perhaps these ideas were fostered by the warmth and caring for others, even strangers, that I always saw exhibited within my family. Through this, I took my nursing kit with me everywhere I went, trying to "heal" everyone and give them check-ups. I would make people pretend they were ill, just so that I could make them better, or I would make up a condition and diagnose it and prescribe a treatment. As far back as I can remember, I always wanted to be a nurse. My "play-acting" as a nurse had a large impact on my development.

I have always been a people person, and I feel that my dealing with people by 'nursing' them has given me a great deal of compassion for the less fortunate. I did volunteer work in the hospital where I was born for three years from when I was 13 till I was 16. I then went on to tutor under-privileged children. Since I had received so much love and attention growing up, I felt torn apart by seeing how these children were treated. I can definitely see the development of these later activities rooted in my early play activities with my nursing kit. I came to see nursing as my way to help people. I even proceeded to study nursing here at the university for two years. (*female*)

My favorite toy as far back as I can remember was my tennis racket. When I was nine I learned to play and from that time on the racket was glued to my hands. I played tennis with other people and also by myself. When I had no one to play with I would go in my basement and hit against the now cracked panelling. When I used to do this I would play imaginary games against the wall. I would pretend I was Chris Evert and would play Billie Jean and others. I would always win. I would even keep score on paper.

My parents taught me to play tennis because it was a sport they loved and they wanted me to excel in it. Whenever I was just sitting around they would suggest I go in the basement and play or find someone to go to the club with. They also loved to go to the club and practice with me. For years they were my play partners. I guess in a way my tennis racket was an educational toy. It taught me many things—how educational these things were I do not know. (*female*)

Most of my toys kept me busy inside the house. I lived in the city until I was 11, and it is somewhat understandable that I was not permitted to leave the yard until the 2nd grade. However, I think that I can justifiably accuse my dad of 'holding me down,' or 'keeping me dependent on him,' and of discouraging me to think and live independently. (This is still true today.) To give you an example, I did not have a tricycle as a child. Almost every little boy in America gets a chance to ride around the house on a tricycle. For some reason, I wasn't given a vehicle to ride outside the house. Instead, I was given a little electric (battery-operated) car that *had* to be used in the house. This was an attempt to socialize me with American lifestyle, but it limited my socializing to the household!

When I was about seven, my dad got me a 'Big Wheel,' a plastic tricycle that my father thought I could use in the yard. However, the traction wasn't good enough in my yard, so I had to take it outside the yard in order to use it!

This Big Wheel is probably my favorite toy, because it gave me the opportunity to leave the house. With this vehicle, I could ride all over the block. (I couldn't cross the street, but by hanging out on the sidewalks I saw and met people from the sidewalks that were across the street.)

Suddenly my dad's dual wish of socializing me with the outside world while keeping me inside clashed. He gave me the gift, and he had to live up to his generosity by letting me *use* the gift. As a result I think he was disappointed. His disappointment is evidenced by the fact that he did not buy me a two-wheeler (bicycle) until I was almost ten years old! Once I had a two-wheeler, I could cross streets and travel indefinitely and my parents would not find out where I went. (*Male*)

Constructing fantasy worlds was the major shared occupation at home. Most of the playtime of my brother and I was actually spent creating complex environments to make play itself more interesting. Realism was the rule. Every little detail had to be as convincing a copy of reality (or of a possible reality) as we could make it. In order to be convincing as their creators, our universes had to be realistic. We built medieval cities for the knights and constructed huge models of modern battlefields for the toy soldiers, preferably in the middle of the living room. After that we set up a complicated system of rules defining the exact amount of destructive impact for each weapon involved, the range within which a shot could be a kill and the amount of time that had to pass before troops could come back to life (the number of miniatures we had being limited).

Working together on these projects allowed us to transcend our individual obsessions with toys and to give a shared fascination a jointly determined form. It was a very social form of play. Generally the ordinary rules as to what belonged to whom were—at least temporarily—eliminated. (*male*)

Conclusion

There is a sense in which these accounts, and the many more that have not been included here, are almost too various to permit generalizations. At the level of sex stereotypes they fulfil the usual expectations; but at the level of individual variation they are much harder to account for. Some are nostalgic accounts of earlier times. Some seem to show a relationship between earlier character and current behavior. Some imply the development of special relationships with other family members. Some are our continuing story of loneliness and consolation. What most of them show, it seems, is the way in which particular toys or play objects become thoroughly absorbed into one's social character and self during this age period. The toys, as it were, no longer dominate and create the play, so much as they are used to further the self that the child, or the child's parents, have in mind. There is a sense of destiny in some of these examples.

All of which leads to the conclusion that the truly vulnerable period of life with respect to toys is presumably the first five years, not the later childhood years. It is in those early years that the toy itself can command so much attention from the infant and the preschooler simply as the thing in itself. After those years the larger web of the community in which the child lives begins to exact its own sanities.

Prior to that time the child, more or less isolated in its own home with its own parents, and perhaps leading a fairly solitary life even with them, is particularly dependent upon the consolations of the toy world. Given that television is the major agency for mediating these possibilities to the child, it must be assumed to have an influence far greater than any outside agency has ever had before in placing the possibility of new toys before today's children. It is not just that television tells *their* story, it is that so many of these very young need that story. Though that is less likely to be so when there are other siblings, other friends, nursery school and playful parents. I would put down the contemporary growth in toy "fashions" (Cabbage Patch, Gobots, etc.) to the relative isolation of the modern child and modern family and their consequent consumer susceptibility. The greater relative independence of the 6- to 12-year age group is indicated by the items on the best-seller list in the prior chapter. The very toys themselves imply a greater participation and independence on the part of the players, e.g., puzzles, games, construction outfits, crafts, video games, musical instruments, and puppets.

Still, one major point of this chapter is to gainsay many of the points in the prior one, which is to say that in a variety of ways children use the toys for their own autonomy. Although toys are presented to them heavy with the missions of the culture or the toymakers, children do nevertheless exact from within those constraints some small pieces of their own destiny.

Yet another way of co-ordinating the apparent influence of the market in the prior chapter and the apparent independence of the player in this one is to consider that in the child's toy world there are at least three major layers of toys which are reacted to in quite different ways. First, there are the kind of toys that are given to children but are of no great significance to them. These are the *toys of acquaintance*. Children's rooms are full of these toys which were bought for or by them on whim but were played with only once or twice or not at all. They may be toys bought by the parents because of their own ambitions or their own nostalgia. Or they may be presents from relatives. Or they may be those many advertised toys that turn out to be nothing much when you get your hands on them. Probably these fads and fashions reflect the market world more adequately than do most other toys but they retire quickly to the bedroom as museum pieces or to the garbage pile outside. Parents tend to put children under constant pressure to throw such unused toys away, unless they are "educational" and may still be used later. These are the most obvious toys of conspicuous consumption but are not consumed except in the most trivial monetary sense.

Then there are the many toys that are played with extensively and upon which the child exercises that imaginative pretense that has been discussed in the last chapter. These are the toys that in general have long been found, in this culture, to be fitting at particular ages and to the unique sexes. They are the *age- and sex-stereotype toys*. They have become that way because they work for most children, as is shown by Tables 11.5 and 11.6. The history of play would suggest that the market has followed these age and sex differences rather than instigated them, though it might well have accentuated them. These differences are hardly original with this century.

Finally there are those few quite idiosyncratic *toys of identification* which come to play a long-term role in the development of many children, sometimes being played with for years, and sometimes having a prognostic destiny in the subsequent life of the child.

CHAPTER 13

The Idealization of Toys

The title of this work is *toys as culture*, and we have proceeded up to this point through a sequence of increasingly large cultural domains—from the family to technology to education to the market place. While there might be some dispute over the proper order of these, what we need to do now is place them all in the even larger context of Western history. Clearly this context might be said to logically precede rather than follow the others, particularly as it involves the Greeks, the Renaissance, the Protestant Reformation, the Industrial Revolution, the democratic revolutions of America and France and twentieth-century economic affluence. In working with toys we have sought to work from the small unit outwards rather then the other way around. This has been a matter of documentary perspective, not a view about causality.

What follows is a too-brief list of some major Western intellectual epochs and what they may have contributed to our current understanding of play and toys. What is being said is that these ideas became part of intellectual currency at the times mentioned. Obviously the true historical origin (as contrasted with the intellectualization) of these ideas lies much deeper in history than is dealt with here.

Play as Irrational (to be Toyed with by Fate)

It is rather a surprise for a twentieth century person to take seriously the early Greek view that the gods are at play in this universe in a random way and that we as human beings are their pawns or toys in their war games. Like children or like some divine lottery the gods go their arbitrary way regardless of the consequences to us. As the Greek philosopher, Heraclitus, said, "Lifetime is a child at play, moving pieces on a board."[1] We have so confined our modern notions of play to something we or children do in spare time that this view that we are being "played" with in the Universe of which we are a part is almost beyond our grasp. Except that in a sense we do live in a "modern" version of this game insofar as we are the pawns in the great Thermonuclear War Game being constantly rehearsed between the Americans and the Russians. The thinking of both sides in this confrontation is governed by strategic notions derived from games. In the 1983 movie *War Games* the boy who is the central character and has precipitated a final countdown asks the computer, "Is this a game, or is it real?" "What's the difference?" replies the machine. For the early Greeks and many tribal cultures, there appears to have been little difference. Whether contemplating metaphorically the games played by the gods, or participating in games themselves, the view in general was that contestive play was part and parcel of the sacred life and that humans were its victims. Perhaps it is not incidental that, on the one hand, we engage with the Russians in a play for the world (through War Games), and on the other we have a relatively inconsequential conflict with them over whether we will play on their playing field or they on ours (as in the Olympics). Though we may have rationalized the world on the playing field, the magnitude of ludic issues that contain us has apparently changed much less than we think.

Which is to say that there is a layer in modern consciousness in which the notion of being toyed with by fate is a deep and fearful reality. So that when we think of toys as being for children, and when we write play theory about the toys teaching children mastery over their own fate, what is it that we are really saying? Are they any more masters over their own fate with their own toys than we are masters over ours? Is there perhaps some deeper displacement of our own feelings here? Is this a cosmic joke? Do we, who are the toys of fate, give our children toys so that they will not be the victims of our power? We are, after all, the gods who pull the strings within their worlds. Whatever the interpretation, it is clear that the notion of toys stands paradoxically both for our powerlessness in the face of fate and for the power of children's resistance in an elementary or childish way. The toy is like a fetish object into which we stick our pins in order to magically affect some distant person for whom it stands. Perhaps toys in general are a metaphoric fetish against impotence. They are like the rooting section at a football game or like whistling in the dark, and have the virtue that they, along with these other devices, maintain optimism and the belief that we shall overcome. To link toys with fate in this way is to be as metaphysical as we can be about them. All the subsequent historical "meanings" that we sketch below seem to be of a more confined order.

Play as Mere Appearance

Plato and Aristotle changed the nature of Greek thinking from the more magical and fateful kind that we have been sketching. They introduced the notions of man's rational control of the Universe which were later to become the touchstone of the Western mind in the age of science. In doing this, however, they introduced a distinction between rational thought or philosophy (later to become logic and science) and irrational thought or art, literature and play. In Plato's philosophy play was only a second-class kind of knowledge, often a matter of deception, unless, of course, it was modeled after rational thought. Play at best could be a good imitation. For the first time play received its label as an inferior kind of activity, an appellation which it still retains. Subtly our own human weakness within the play of the gods became the weakness of play as a way of knowing anything of importance.

From the Middle Ages onwards there was continuing argument over which kinds of play were legitimate. The ruling classes generally sought to foster those kinds which they felt were of military value and ban those kinds which were not. There is throughout subsequent Western history this attempt to control the anomalous phenomenon of play. The kings and queens of Europe in general supported tournaments, horse racing, fencing, archery, tennis and hawking; and in general banned soccer, skittles, quoits or ball games against church walls, which were either the pastimes of the peasantry or interfered in some way with civil order. Unfortunately there is no simple distinction established by their multiple laws, as they varied from time and place in what was declared out of court.

Some of the difficulties of knowing what was in and what was out are nicely symbolized by the controversies surrounding Breughel's famous painting of 1560 entitled *Children's Games*. This is the very first Western painting to give us a picture of the wide range of the games and pastimes of the day. The painting contains some 240 persons engaging in some 80 pastimes. One presumes that most of these folk pastimes engaged in so vividly by their protagonists would simply not rate with the ruling classes. Indeed, the most frequent interpretation of the painting is that it represents the follies of mankind. Children's play in its passionate nature, it was said, is like the folly of adult obsessions with religion and politics and war. Protestants used the representations in this painting of children playing at baptism and marriage ceremonies as an indication of the childishness of the same kinds of rituals practiced by the

Catholic Church. Catholics, on the contrary, argued that as children are nearer to God, their imitations were therefore a sanctification of church practices. Others saw the painting as an exhibition of the kind of uninhibited excess that Rabelais had written about, parodied and perhaps sanctified in his novel *Gargantua and Pantagruel* of 30 years earlier (1532). From his point of view, play in its nature may be immoderate, grotesque and obscene. In his view of play the irrational play of the gods became the irrational play of the folk. The freedom of the gods became the dangerous freedom of the players. Others contended, on the contrary, that the painting, even if it showed the corruptibility of children, also showed their innocence and their need for supervision.[2]

There are many objects in this painting. There are 29 play objects: knucklebones (jacks), marbles, caps, stilts, tops, rope, bonfire, mud, hoops, mumblety-peg, barrels, bricks, stones, sticks, handkerchiefs, paper crowns, blindfold, shoes, nuts, broom, sandpile, water, trees, bowls, basket, paper, pins (bowling), tipcat. There are 14 toys including: a church altar and candles, masks, swings, yoyo, soap bubbles, birds, toy horse, hobby horses, water pistol and a rattle.

In the subsequent century, with the Reformation fully established, the dialogue over which play and which toys are good and which are useless is a matter of record. There are, for example, accounts of the attitudes of various moralists to the games and toys pictured in 17th-century Flemish painting. For example, the game of Backgammon, often shown in brothel scenes, was meant, according to some moralists, to show the "fateful" character of this kind of dissipation. Even the pressence of cards or of dice in a scene could have the same implication, as they were reckoned symbols of the fickleness of life. Chess, on the contrary, is said to have been accepted because of its cultivation of astuteness, and skating was usually permissible because of its association with physical fitness, though some moralists also used it as a metaphor for the slipperiness of life. At times hoops were condemned because they were a matter of running after nothing of substance. Jacks were matters of chance, therefore, of folly. Turning a windmill in the breeze was a deception, riding a hobby horse was a kind of self-delusion and blowing bubbles an exercise in transitoriness. Whip tops were acceptable, however, because they preached the virtues of discipline.[3]

So, in finding play to be a secondary kind of knowledge, Plato had planted the intellectual seed which, during the Reformation and subsequent puritanism, encouraged the view that play was a form of idleness and toys were mere trivialities. The feebleness of mankind "toyed" with by fate, now became the feebleness of toys to advance man's status in the world. Or rather, it became the feebleness of *some* toys and *some* plays to be helpful. This is a distinction which has subsequently been rendered as that between those toys which are for mere entertainment, and those which have educational value and which may therefore be some reflection of true knowledge. This ambivalence is still very much a part of the modern toy scene. As we saw in a prior chapter, in the nineteenth century the educators Froebel, Pestalozzi and Montessori drove this distinction into educated consciousness, and in the twentieth century the toymakers have endeavoured to make it a handmaiden to commonsense.

Play as Deception (Flexibility)

Prior to these later developments, it appears that the Renaissance brought about a fundamental shift in thought which, in turn, had an impact on thinking about the meaning of play. What emerged as another new way of viewing play in these times relates to the issue of individuality, and to the contrast between the ceremonial mask that the person presents to the world as a serious person and the self who lies behind that mask. The great parodies of the sixteenth century by Erasmus (1509) Rabelais (1532) and Cervantes (1605) all focus on the distance between the role that is an absurdly serious imitation of ancient or religious wisdom, and the same role as "played" with more manipulative flexibility. Particularly in the writings of Machiavelli (1513) and Castiglione (1528) one is taught to play one's role in public life for the sake of expediency.[4]

The artifices of role-playing may require some desertion from morality for the sake of public or patriotic gain, whatever one may do with one's private life within which the older moralities can still be observed. In this context the meaning of play-"freedom" refers to individual choice, rather than to the random play of the gods or the uninhibited play of the folk. This is a notion of role-playing, of adopting rules "as if" they are personal fictions rather than imitations of the divine or ancient life. Not to be such a player is to be a rigid or foolish person who mistakes his or her own mask for reality. This changing view of one's roles is usually associated with the changing military tactics of the Renaissance and the ruler's need to be at ease not only on the field of battle but in the manipulations at court involving a many-sided social life. Dictionary definitions of play and toys continue today to maintain some of the associations of deceptiveness that appear to come to us from this period of history. Thus "to toy" is (to):

be amorous
be flirtatious
engage in a pastime or sport
a trifling practice
a silly opinion
a wild fancy
an odd conceit
toy with another's affection
treat foolishly
be full of trifling tricks
be wanton
be a trifler
be a toyer
be toyish
act toyishly
toyishness

Toys do not stand on their own in this deceptive quality. The player can be similarly characterized as one who:

pretends to be engaged
plays for time
plays into the hands of
shows off
plays upon other's feelings
plays on words
plays up to someone
plays tricks
plays the fool
makes a play for someone or something
makes love playfully
amuses himself
moves lightly or erratically
has a smile playing on his lips
treats things in a trifling way
plays fast and loose
(Webster, 1961)

The sense of "toying with someone" can be seen as a substitute for being toyed with by the fates or for being a mere toy of the fates. The idea "to toy" as some kind of assertion first achieves status within these philosophies. They are ideas that have never departed from adult concepts of playfulness, but have seldom been countenanced in subsequent play theory, which is largely child-oriented, and makes a clear distinction between child and adult play, ignoring the latter almost entirely.[5]

Play as Childishness

When toys are first seen as machines that move, in the 17th century, they are anything but childish. They are demonstrations of the control of the Universe first by God and second by man. In the next two centuries, however, they will become the affair of children. This remarkable change from 1600 to 1800 is in part attributable to the Platonic distinction involving play's relative unworthiness as a source of knowledge, to which we have alluded. More fundamentally, it has to do with the Industrial Revolution. This force creates families which are increasingly separate from productive work, which now takes place in factories, at a distance from the residence, and is increasingly carried out by men alone. Children, for the first time in Western history, become a group separable from economic life. They are put to school. They are given a literature of their own. They are given clothes of their own and they are given toys of their own. Everywhere there is an effort to bring them under control. The literatures that they are first given are didactic. The toys that are first advocated for them alone are educational. The fairy tales written for them instruct the girls to be patient and obedient (Cinderella) and the boys (even if ugly) to be enterprising (The Frog Prince).[6] The battle to domesticate this new group within the culture will proceed until the present day. While all of this begins to happen to the children of the middle classes between 1600 and 1800, in the 19th century the effort at domestication extends to all children. It is perhaps no happenstance that the mass production of inferior toys (those made of tin, paper, etc.) occurs about the same time as the mass production of public schools for masses of city children, towards the middle of the 19th century. The efforts to control these children through schooling gradually extends by the end of the century to the effort to control them through organized sports and playgrounds. One might even say that such efforts at control have continued until our day, when with the invention of television, more children have been brought more successfully out of their dangerous street play than by any other device in Western history. According to some, all were devices to bring the street urchins, the gutter snipes and the waifs of immigration and countryside into the socializing systems of the modern world.[7]

So the story of the way in which play and toys came to stand for childishness is, in the first place, the story of the way in which the shift in children's economic function led to the need for new social controls over their behavior. Schools, sports, playgrounds, leisure and toys were among the means sought to bring children into new systems of civilizing control. We are talking, however, of events which did not finally establish themselves until the present century. Many children during the 19th century were still in the world of work, coal mines, domestic service, apprenticeships, etc., and were little touched by any but the older forms of folk or street play.

Children were not only put out of the work place from 1600–1900; they were increasingly demeaned by the fact that work had now become a center of life and value in Western civilization, to an extent that appears not to have been the case in the Middle Ages. The Protestant Reformation with its emergent work ethic gave a value to work, whether in an entrepreneurial or industrious sense, that made it impossible for children to be considered with the same seriousness, because they were no longer workers. Of all the ideologies presented here this one is clearly the most fundamental for our understanding of our present attitudes to play. This is the one that engenders that discontinuity between child and adult which is still so much a part of the modern scene. This is the one which forever renders children, their play and their toys childish and trivial in the eyes of the general public.

Play as Imagination

Modern seriousness about play in childhood owes some of its origin to the interpretation of play in the German philosophical idealism of the early 19th century.[8] It may derive also some component of its meaning from the liberating impact of the American and French revolutions which, whatever else they did, revealed the power of human imagination to change the character of society. About this time, play began to be identified as a kind of imaginative or "as if" thinking; a heuristic fiction without which the hypothetical life (and hence the scientific life, and hence the acquisition of truth) would be impossible. There gradually emerged that fundamental pivoting of intellectual life, wherein the 2,000-year dominance of philosophy, logic and science over art, literature and play as fundamental modes of knowing began to be called into question. From Kant to Schiller to Nietzsche there was a shift which brought into question the former hegemony of the sciences. This shift, still in progress, began to make it possible to consider that play in general, and children's play in particular, contains a special kind of imaginative truth; even to suppose that play was itself the source of all imagination and all invention. From this point of view a child's play may be the source of its future creativity, its future innovation and its future unique role in the world. There have indeed been a number of recent empirical efforts to show that more playful children are more imaginative or more creative.[9]

As we have shown earlier, however, there is no need to confuse imagination or creativity with play. They may well be correlated, but they have quite distinct functions in human adaptation. Clearly one can imagine castles in the sky without actually pretending there are castles in the sky. Every poet, every painter, every architect, every scientist must imagine the way things might be as a guide to his or her actual productions or actual hypotheses. The envisagement of possibilities is essential to the imagination. But none of these people need to be playing when they are imagining. To imagine need not be to pretend. One can be very earnest about one's imaginings, one's envisagement of utopian worlds, of worlds without pain, worlds without hunger, worlds without pollution. There is no pretense here. There is hope that what one has imagined will come to be.

But pretending knows itself to be not what it asserts and is an activity of paradox for its own sake. It does not have the forward projection of scientific or artistic imagining, which takes dreams as instruments to mold a different future. Play never does that. Play takes its dreams as ends in themselves and through endless repetition enjoys these expressions as a statement of antithetical feeling and behavior. Play's end is within itself. Art and science have to end in some world of public accountability. Play need not do that, although some forms, as sports, have such accountability.

By associating pretending with imagining, play has been further idealized in the past few hundred years. The one borrows from the nobility of the other, though the odd outcome with toys is that there is the pervasive stereotype that if children are playing with boxes or blocks or malleable materials which are not already images of something else, then they are imagining; but if they are playing with realistic toys, they are not imagining. So public opinion is divided about toys. Some are regarded as vehicles for the imagination and some are regarded as cramps to the same process. The metaphysic of toys as childish has widespread acceptance; the metaphysic of toys as imaginative does not. There is the further complication that if toys are old-fashioned, or collector's items, or the kind of wooden folk toy made by the Germans for five centuries before the mass toys of this century, then they are also associated with the imagination and felt to have some superior function for the mind.

The Idealization of Play

Paradoxically the very stress, in the Reformation, on work as drudgery or as divinity led ultimately to a romanticizing of the escape from work. In the 20th century, with increasing affluence, with the substitution of personal achievement for divine grace, and of unemployment compensation for the miseries of destitution it has become possible to fantasize that leisure is really the preferable form of living as an escape from work. As this turn-around has occurred, then children's play, originally seen as a frivolous escape from work, also began to be idealized as a very special form of freedom and choice. But in the first gropings for a new kind of mass urban leisure, which occurred in the second half of the nineteenth century, much of the recreation advocated for children was derived from the sporting activities of the privileged and given prestige because of that.

The 1896 Olympics were initiated with such notions of privilege and many sports which were adopted throughout the world were those that had been practiced formerly by upper-status persons. It was "classy" to play sports and recreate in upper-status ways even if you did not have the time nor the money to waste as they had. There is a representation of this value system in the contemporary film *Chariots of Fire*, where the aristocrat is the one who balances the glasses of champagne on his hurdles as he goes about his most leisurely pursuit of glory in his own sumptuous estates. He is the one who can afford to drop out of one of the Olympic contests to allow his compatriot to compete in his place. His behavior and value system contrast strongly with those of the other two main characters in the film, the one overwrought by religion and the other by ambition, although, as we now know, the future was to belong to the latter. This aristocratic use of leisure as a demonstration of conspicuous consumption and superiority contrasted markedly with the work-oriented developments of the Industrial Age. Thus the late-19th century gave to some team-games a repute they certainly had not acquired in their more barbarous pursuit by medieval folk. In turn, those involved in playground movements of the first twenty years of this century began to use team sports to bring their urchins, vagabonds, or depraved immigrants under control. Through team games it was thought they could be colonized into the dominant way of life. It was an ideology of the rich for the poor, and it turned out to be the most successful recreative ideology that the modern world has had. Although the original intent may have been social control, the idealizing of sports was an inevitable correlate.

Buttressed by the evolutionary doctrine provided by famous child psychologist Stanley Hall, particularly about working through primitive atavisms on swings and merry-go-rounds, such an ideology led to the spending of millions of dollars on playgrounds and on industrial recreation programs. It was believed that delinquency would decrease among minors as they acquired the upper-status virtues of *character* and *teamsmanship* and that factory norms would improve in the workplace. Both of these outcomes were claimed subsequently to have taken place. The arrest rate certainly dropped when children were not playing their "heathen" folkgames on the streets, but were playing sports on playgrounds. And although for many years skeptics in sociology have been trying to demonstrate that if you make it on the team you do not necessarily gain a better character or success in life, a majority of persons still today believe that team games are an answer to child character development.

Most of us are so familiar with the recreative ideology which we have just mentioned that we do not think of it as a serious theory. It has become a folk practice rather than a theory. It could be argued, however, that it has been the very ideological success of team sports as a genre of play, that has made it possible for academic play theories of an idealizing kind to also succeed. And there are not any academic play theories that do not idealize children's play.

In general, *academic play theories* have been created by professionals who work with children in nursery schools, in therapy or in laboratories. One might tentatively call them play theories for the rich. Not surprisingly, all these theories preach that the child who plays in his or her solitary way is better prepared for life. Whether this play is regarded as a kind of evolutionary preparation, a better adjustment to conflict and anxiety, the development of cognitive operations, the increase of one's exploratory activity or as a facilitation of communication and social innovation, all modern social scientific theorists of play have seen it as contributing to child development in one way or another. In fact, there are now programs for training children through imaginative play so that they will be better able to inhibit aggression, delay response and learn to read. What sports has done for the depraved, we are told, imaginative play may do for the deprived.

In case the reader should feel that recreation and play are not being idealized in our century, let me call attention to an array of historical, anthropological and local evidence which suggests just how *unideal* sports, play and games can actually be.

First of all, though most modern recreative and play experts assume that recreation is a voluntary activity, it can be argued that the notion of voluntarism is itself a quite modern and historically relative notion. By and large what a modern would see as optional because not work, a pre-modern person might see as sacred and obligatory because part of the work of the gods. When sacred games were played, all members of the appropriate age and sex cohort would be expected to participate in order to placate the gods, the dead, the weather, the sick or the infertile or whatever the case might be. Historical anthropology is rife with bloody and brutal but playful customs. There were the Eskimos who competed at twisting each other's ears off; or who attached a piece of leather to each other's testicles to see who could outpull the other in a tug of war, all the time smiling and, if possible, laughing to indicate their playful intent. There were the Mayans who played ball games in which the captain of the losing team had his head chopped off; there were Indian tribes in which masses playing at Lacrosse injured, brained and brutalized each other as the game proceeded; and then there were those medieval English soccer players at similar games. Some have had the acumen to call some of these "terminal games." Even the historical scholar Huizinga, who has written so idyllically about the play spirit in civilization, cites many examples of contestive plays (the primary form in which civilizing occurs, he believes) which involve enduring pain, fighting, mutual bragging and execration, derision and scurrility, slanging, squandering goods, bloody and fatal conflict and duels fought to the death.[10] Our modern idealizing notions of play as optional behavior hardly seem appropriate to these kinds of play.

Perhaps most modern notions derive to some extent from the situation in a nursery school in which the adults provide a setting with toys, etc., where, under their supervision, children are supposedly "free" to make choices within the limited array available. When we see children on the playground, however, that freedom is primarily freedom from the classroom. There is limited freedom of choice in the actual play of the playground itself because of the obligations to friends and to powerful other children, etc. What is more remarkable about playground play is the necessary conformity of the players to seasonal pastimes or to the activities of the dominant children. Even more, intimate play at home with one's best friends is often strongly influenced by commercially instigated activities involving the imitation of television dramas or the use of advertised toys. The typical scene in many modern homes is of the child playing in front of the television set with a television-advertised toy. As we have seen, the history of the twentieth century can be written as an illustration of the gradual socialization of children's leisure to bring it from the more unruly folkways of the nineteenth century into the more domesticated forms of that organized and adult-influenced recreation, sport and play with which we are now familiar.

In sum, idealistic notions of freedom or voluntariness, etc., are not sufficient to account for play. One can still play even if one has been required to play in the first place. There are a host of ways in which degrees of personal autonomy are or are not expressed in the phenomenon called play, and it is an empirical matter to decide what these have to do with it. What has been assumed as the most fundamental characterization of play by modern specialists, therefore, must be brought into question. Secondly, play is often not only not voluntary, it is unpleasant; it is characterized by *negative effect*.

In *A History of Children's Play* I have detailed a host of ways in which what went on in the playground and what was commonly called children's play was often brutal and unpleasant for some of the members of the "play group." For example:

> Fights were arranged for the amusement of the older children. They were arranged by school bullies in a paddock where one even had to fight one's friends. Everybody had to fight. Those who lost were *crowned*, i.e., the victor patted him three times on the back and spat over his head, usually aiming too low! Though the fights were amongst boys, girls usually scratched the eyes of their brothers' opponents if they lost. Girls usually fought in their own way by hair pulling. In other fights, the prisoners of a gang were held by force. They had their shirts torn and fingers bent back. An observer on the time writes: "The individual and gang fights of the day were often very harsh and the younger, less virile members of the playground were often terrorized by those stronger ones." The harshness did not stop there! In many places there were initiation ceremonies as well. Ducking under the tap was the most widespread form but there were others. In "Kings of the Golden Sword," the initiate was made to face the fence with his hands behind his back. There were long ceremonies about his crowning and entry into the school and finally the golden sword which had been dipped into the latrine was pulled through his fingers. In the rite of "Pee Wee Some More Yet," the initiate was blindfolded and ordered to pee into another boy's cap. The cap turned out to be his own, or the initiates would have their pants taken down and the initiators would spit on their private parts. Another ceremony included taking the initiate to the stables, waiting until a horse was urinating and

> spinning the boy under the stream. In "Tug o' War," a cap was held in the teeth of the new boy and a bigger boy. The former had his hands tied behind his back. While the war was in progress, the big boy peed on his young opponent who could not see what was going on but gradually felt the wet warmth on his clothing.[11]

If these examples are indicted as rare, antiquated and unfair, we can turn for examples to the modern and comprehensive folklorist work by the Opies (1968) and the Knapps (1976), and to recent examples of play in nursery schools and other play spaces for children. On our estimate, two thirds of the contents of play in these examples is occupied by struggles for power, by the play of attack and defense or chase and escape. Once again there is in these relatively rare sources multiple instances of brutality, callousness and all-round unpleasant behavior.[12] And there is also much obscene and erotic behavior, which, although it might not cause much immediate negative affect in the child players, usually does when they are caught at it by their parents, or by the teachers.

Thirdly, yet another idealization is the notion that play is particularly flexible. Although the notion that play is egalitarian, especially collaborative, is not widespread among social scientists, it is found in some quarters. The view that it is the domain par excellence for flexibility training is also found among some theorists. Yet these views must contend against two other positions. On the one hand, there is the older view that children's play is highly routine and rule-bound; and, on the other, there is the newer socialization perspective which says that a major function of children's play is the establishment of dominance-subordination hierarchies. There is abundant anecdotal evidence of playground bosses, of harassment specialists, of the fact that some games are "owned" by some children and others are simply excluded. There are leaders and followers with the former acting very often like dictators of what is allowed to transpire. *Playground bosses* and *harrassment specialists* are well-known figures among children. Children who wish to enter other's games often barge in, threaten to bash another's face in and often will knee kids in the stomach. Children also use play to terrorize each other. That is to say, they often move between pretending, and actually being aggressive. This turns out to be an extraordinarily powerful way of controlling others, for the recipients of such conflicting information have difficulty in predicting what will happen next and become uneasy. All this suggests that there are *dominant and dominated children in play*. Andy Sluckin's work is rife with ferocious descriptions of fights on the English playground (e.g., p. 86–90). One is reminded more of William Golding's *Lord of the Flies* than of collaboration and flexibility.[13]

Finally, in rehabilitating play from its former neglect, the scholarship of this century has followed the direction of both anthropological and psychological functionalism in seeking for usages to which play might contribute. Basically, the bulk of evidence has consisted in drawing formal parallels between a play or game activity and some analogous form of adult functioning. The search for isomorphisms between play structures (for example, games of strategy) and cultural structures (for example, societal complexity) has been held to support the contention that play and games are indeed a functional contribution to socialization in one way or another.

The problem with this simple assumption, however, is that the issue of play's *dysfunctionality* is never fully reckoned with. Fagen, who in his book *Animal Play Behavior* is a promoter of play's contribution to evolution and development, is one of the few to also point out that in the course of prolonged separations from the caretaker while playing, animals become entrapped in rocks and mud, have dangerous falls, break their limbs, as well as sustain serious injuries in their play fighting.[14] According to Fagen, the amount of risk that a species can tolerate varies with its conditions of survival probability. When these are low, play is too risky. When predation is high, food short, and conditions crowded, there is less play. More play is associated with more territory and more food. On the human level, others have demonstrated how many festivals and sporting events are associated with dangerous consequences.

I have presented all this material to show that there is plenty of evidence to demonstrate that human or animal play is not necessarily an ideal phenomenon and, by contrast, to illustrate the extent to which we have come to believe that it is. We have come to assume that because leisure means freedom from work, then children's play, as a kind of leisure, must also be an area of freedom and of pleasure.

But there is, of course, more to it than this. Just as play has come to be seen as the reverse of work (though "play is the child's work"), so childhood has come to be idealized as the reverse of adult work life. During the past 100 years or so we have invented a myth of a separate "idyllic" childhood, over and above children's factual separation from adults in economic terms, which originally led to the derogation dealt with in the prior ideological category of "childishness" and "triviality." The sources and character of this separation are not easily discerned.[15] Some writers point to its origin in the special worlds of ageless universality, powerlessness, beauty, magic and innocence found in the modern fairy tales of collectors Charles Perrault and the brothers Grimm. Others give the credit to the romantic views of childhood to be found in the philosopher Rousseau, the poet Wordsworth, the educators Froebel and Pestalozzi, the children's book writers Andersen, Carroll, Twain, Barrie, etc. Yet others associate the world of children with the romantic, eighteenth-century view of natives as "noble savages." Children as primitives needing, like savages, to be colonized is a persistent theme in twentieth-century thought on children. Yet others assign the source of this separation and idealization of childhood to the political manipulation of the family in modern society.[16] The family forced apart from the major economic processes—as it was not, in medieval village agriculture and craft—has become a repository for idealization. The family ever more in retreat from impersonal and alienative technocratic modern society becomes the last resort for the expression of love, companionship, and intimate feeling. Isolated and defensive as it is, these virtues come to be accentuated and sentimentalized despite the fact that the very alienating forces of professional achievement and sex-role liberation at the same time have deteriorative impact upon family solidarity. As we showed in Part I, the family desperately engages in gift-giving behavior to accentuate the very bonding which gifts, because of their solitarizing values, in part deny. Thus the toys are both agents of protection for the family against the larger political context and at the same time the seeds of its betrayal. The conspicuous consumption at family festivals also forces parents into an expense in order to reinforce family bonds, while the work they must do in order to maintain them causes the bonds to erode. In addition, it is argued by some writers that the "state" actually exploits the special character of family intimacy and bonding as an attitude that it seeks to generalize among the larger population, as a form of social control over those in the workplace.

Still, whatever the source of these many ideas, and whether family and children are manipulated on political, economic or ideological levels, what is clear is that the play ideology of modern times assumes that childhood is a very special kind of play distinct in kind from adulthood and that toys are the very special property of children. Furthermore, because play is treated as a specially childish event of this unique age period, it is given the value of providing children with integration and ego continuity within that period. Play and the notion of childhood become parallel ideas, as in the extensive writings of the very influential play theorist Erik Erikson.[17]

And it also follows that because play and toys came to be idealized, only certain kinds of play are emphasized at the expense of others. The earlier ideas of good and bad play now come to influence the situation so that, in effect, childhood and play are seen as the repository of "good" play, and not of bad play. Bad play is presumably that kind of nuisance behavior, dangerous behavior, delinquent behavior, which occasionally is seen in classrooms, more often in playgrounds, quite often in the streets or in the woods, and known to exist among adults at least covertly. But good play is that larger covey which includes, as we noticed earlier, exploration, mastery, construction, imagination and performance. Play becomes cognitive and learning activities and, as such, passes Platonic censorship as a form of access to knowledge. Toys, insofar as they educate or inform, similarly pass into real epistemology, and are not merely distraction from other more fundamental forms of knowledge.

Still, this *generational view* of play based on the adult/child disjunction does not in itself restore play to full adult acceptance.[18] In a sense, it never can. If the ageless and universal "virtues" of play as a kind of freedom ultimately derive from their antitheses to adult lives—which are, by contrast, corrupt, temporal, relative, ugly and mundane—then some kind of liberation other than this crystallization would be required. The generational view of play only guarantees that those who deal with children's play will be granted a kind of quasi-indulgence as inhabitants of the fanciful worlds of Peter Pan and Alice in Wonderland.

Play as Novelty

In the prior chapter we formulated a view of toys which seems relevant to the recent marketplace and has to do with the plethora of novelty we associated with toy advertising and toy barns. These are post-World War II developments. The long-standing view of play and toys as mere simulations which we may trace to Aristotle, to the view of toys as frivolous and trivial in some Protestant religious thought, is now taken up by many in the feeling that they and their children are being exploited by advertisers to purchase and waste time on a legion of meretricious objects. One can argue either that these novel objects provide a training in distractibility, or that they provide a training in the habituation and management of every increasing stimulation. From both points of view, play becomes a matter of gaining pleasure from the solitary manipulation of objects, though, on the one hand, these objects are thought to be those of distraction and, on the other, those of knowledge.

Play as Humanoid Projection

In this same recent historical period the rise of the soft toy in association with the growth of alienation within the traditional family leads to our final proposition about modern play. Soft toys, because of their large size and softness, are not typical of toys either currently or thoughout history. Toys are, in general, small hard objects. They have not, in general, been large soft substitutes for other people. This is something new. It says that one meaning of play is that it is a way of taking pleasure in large soft or humanoid creatures upon which one can project one's own feelings or conflicts, particularly those involving the need for relationship and consolation.

Conclusion

In this chapter we have sought to show that play and toys have been differently construed in different periods in Western history, and that these constructions persist today as a variety of laminations on the modern meaning of toys. Thus:

1. We may see toys as having the implicit meaning of something *powerless*, something "toyed" with by fate. There is probably a coalescence between this early Greek view and our attitude to toys as machines. The toy as machine toys with us and that is not an entirely pleasant experience. But then children are also our "toys" and in a sense we toy with their fate. Toys are supposed to bring children autonomy, but in some sense they are a symbol of children's weakness and heteronomy.
2. But toys are also seen as *useful* or as *meretricious*, as educational or merely entertaining, and this traces back to early ideas about the value of certain kinds of knowledge, philosophical and scientific, over other kinds, literary and ludic.
3. Again, toys are associated with *fickleness* and trifling, deceit and deception, as in the phrase to "toy with someone." But there is also the implication here that this kind of knowing involves flexibility and interpersonal strategy, which seem to have been highlighted in sixteenth century Italian Renaissance city life. Although this perspective seems more relevant to adult play than child play, perhaps the fault lies more in the subsequent

hegemony of the "childish" view than in any deficiency in toy play which may well indeed lend itself to such flexibility in the behavior of the young. There is experimental work which shows that access to toys increases the variety of children's play.[19]

4. But the dominant view of toys has been that they are an intrinsic part of and symbolic of the *childishness* of the play world. They are the object of immaturity, as well as its definition. In their age-graded forms they frame the owner as child, and then signify about which level of childhood the player occupies. We have spent considerable effort attempting to explain the apparent importance of this discontinuity to modern society.
5. With twentieth century affluence, it has become possible to think of all the ways in which we escape from the bonds of work as forms of pleasure. We have come to idealize them; and sports, games, play and toys have all become vehicles of this *idealization*.
6. Toys have also been taken as exemplars of *imaginative* activity; and this notion, related to the Enlightenment, the democratic revolutions, the growth of science and the idealization of art, has done more to dignify modern views of play than any other.
7. In the most recent period the novelty of legions of toys has been both criticized for the encouragement of distractibility and hailed for the encouragement of learning.
8. Finally, the most distinctive of modern toys has become the humanoid soft toys, the companion of alienation in personal relationships.

Dimly glimpsed in the background of our account are earth-shaking social and cultural crises. The intellectualization of play described here clearly originated in particular places and times. While we need no particular location for the kind of universal and irrational play, which is the primordial kind in our account, we assume that "rational" kinds of play advocated within the classical Greek tradition were founded in the hegemony of the Greek city state as a successful and orderly kind of hierarchical civilization. Furthermore the role flexibility of our third metaphysic presupposes the breakdown of the kind of hierarchical and ceremonial-bound civilization which we associate with the Middle Ages. Whether the plagues or the Thirty Years War or the invasion of Italy by the French were the precipitating events can be argued endlessly, but these changes, as well as the changes in military tactics and in economic growth, were all precipitants for the Renaissance's turn towards greater social alertness and the notion of play as a kind of flexibility.

Again, our specially created childhood sundered from the industrial processes and treated as a time of innocence requires that coalescence of industrialization and Protestant religion with which we are familiar. The idealization of leisure and play in turn owes much to twentieth-century economic affluence. Again the role given to the imagination hinges on the American and French revolutions, which were such an enormous democratic seed to the political imagination, as well as their correlates, the romantic movement in philosophy, literature and the arts. Developments in the marketplace and television as well as the family lie behind our final two meanings of play as novelty or loneliness, which is to say again that we cannot define play without grasping its historical and cultural contexts. Each age asserts its preference for the dimensions of play it chooses to create, whether contestive, irrational, rational, frivolous, trivial, idealized, imaginative, novel or humanoid. Our own age and our own marketplace, our own families and our own schools, in particular, are given to the idealization of play and the idealization of toys. We have hoped to show throughout this work and particularly in this chapter that there are many more forces at work than the current narrow idealizing ones, within which children's real play is at the same time neglected. Play and toys are not simply about positive child growth and development. They are of much larger scope than we usually prefer to assume.

CHAPTER 14

Conclusion

This book has been a personal search for the meanings of toys in the modern American world. It has attempted to direct attention to some of the issues and questions which seem important for further social science investigation. In a loose sense it deals with modern myths about toys.[1] It deals with the stories and messages that are given off by those who are concerned with toys or which are to be inferred from the way children and adults behave with toys. It begins by noting the often crazy and yet quite dogmatic claims made for and about toys that some people feel are dangerous, stereotypic, mechanistic, pornographic, or violent, and in particular focuses in upon the question of whether it is true that one can distinguish between toys that confine the imagination from those that promote it, in particular, between modern plastic toys and old-fashioned wooden ones.

The view is taken that the interpretation of toy meanings cannot be understood without reference to the contexts in which they are found. Four major contexts are considered—the family, technology, education and the marketplace—and each of these is examined for the meanings which toys seem to assume within it. The larger context of history is further queried in order to discover the forces that seem to underpin what has been said about family, technology and education. What early becomes clear is that there are a number of paradoxes and complexities associated with toys and that these can be stated as follows:

In the Family

1. Toys are used largely as Christmas gifts for children, but also involve them in a pattern of behavioral obligations to the parents.
2. Although the gifts are given in order to bond the family together, they seem also meant to encourage solitary behavior on the part of the children. The child's return gift to the parent is its capacity for solitary behavior.
3. Some of these solitarizing objects become substitute humanoid companions for the children (as do pets and imaginary companions also).
4. While parents use toys implicitly for their solitarizing function, teachers explicitly provide toys which will have a socializing or educational influence.
5. Despite a central modern psychological focus on human attachment, an examination of modern child-rearing shows it to consist of more physical isolation of the baby from other persons than has been typical throughout human history.
6. Despite modern advocacies of parent-child interaction and peer-peer interaction, the bulk of the infant and toddler's toy play is done in relative isolation from others. It is argued that a majority of classic toys were made to be played with solitarily. They were never meant to be social phenomena. We interpret this implicit solitariza-

tion as associated with the increasing role of individualized talent in the history of Western civilization.

In Technology and Science

1. Toys as machines increase our powers and yet appear to make us apprehensive of the powers they may exercise over us. We fear that what does us a service by running by itself may end up by doing us a disservice by running us as well (e.g., video games).
2. Toys can be thought of scientifically as a series of object ideoglyphs of modern object reality, a fact we seem reluctant to acknowledge in our curriculums of literacy. We can understand that numbers and letters have their "alphabets," but we are reluctant to concede that our technological world may also have its object alphabet for the very young. Toy literacy is as yet an inadvertent object curriculum.
3. Although we understand the key role of technology in the birth of our civilization, and the key role of the technology of the human body (medicine), we are reluctant to consider the technology of toys (or tools) as a matter of critical importance in the growth of infants and toddlers. We emphasize the general role of the environment in growth but are reluctant to study the specifics.
4. We seem unwilling to admit or focus on the possibility that what we call "toys" are, for infants, actually "tools" of general development having very little to do with play as such.
5. More speculatively, as real or imaginary self-moving machines, toys may be models of, and exercises in, autonomy.
6. As miniatures, toys may be validations of the child's inner world.

In Education

1. In general toys are regarded as trivialities which are not to be taken very seriously, and yet when given as gifts it is

also expected that the child will learn something serious from them.

2. Although we give children toys to play with, in the first two years there is little evidence that they play with them. Play is not the child's work, as is often said. The child is too busy being intelligent (exploring, mastering, imagining and performing) to play most of the time. Work, not play, is the child's work.
4. Perhaps we call toys "tools" and their work "play" in order to disguise from ourselves how much we are concerned with and driven by our own needs for our children's achievement and progress.
5. It is hard to deny the possibility that if a child spends some ten years of his or her life assiduously practicing in one way or another with one kind of toy or another that the human abilities involved might not be importantly affected. The child, in its ability to persist in its own vocation, is the most probable beneficiary.
6. Nevertheless, most toys are more clearly parental signals of anxiety about children's achievement than they are assurances of child progress.

In the Market Place

1. Toys are regarded as novelties which incite consumer interest and which, in conjunction with television entertainment, increasingly define the play worlds of young children.
2. Whether these novelties are a training ground in distractibility and therefore an "opiate" for the social control of children, or are, on the contrary, a valuable training in the arrays of novelty and unique information which children will constantly have to deal with throughout their lives, is a matter of debate.
3. We have the complexity that we cannot call play any one simple thing. Modern ideas of play contain laminations from various historical periods, and these enter diversely into modern views of nature of both play and toys.

Table 14.1 TOY CONTEXTS: CONNOTATIONS

I *Family*	*II* *Technology*	*III* *Education*	*IV* *Market*
gifts	machine	learning	entertainment
exchanges	determinism	cognition	possessions
festivals	autonomy	stimulation	consumption
alienation	organism	work	capitalism
loneliness	computer	exploration	economics
obligation	video game	mastery	commercials
bonding	tools	performance	exploitation
consolation	rationality	achievement	power
community	cosmos	progress	marketplace
attachment	variables	success	mass production
separation	complexity	persistence	idealization
solitarization	environment		
	miniaturization		
Central Foci For Each Context			
intimate relationships	control over fate	growth & progress	power & ideology
Most Relevant Play Ideology			
III Childish	I Irrationality	II Useful vs. useless	III Role-taking (deception)
VIII Humanoid Projection	VII Novelty (information)	VI Idealization	VII Novelty (distraction)
		V Imagination	

Table 14.1 brings together some of the major connotations which have been associated with each of the four contexts (family, technology, education and marketplace), and then proceeds to associate these with the ideologies we have presented.

Table 14.1, with its columns of connotations, now makes it possible to look again at some of the paradoxes listed above and to see how they emerge from the disparate claims on the nature of toys. Toys figure in important human relationships, and from this they gain their connotations as consolatory and as supportive of bonding. But the very family that wishes to use the toy for its relational purposes also has the job of child rearing and of leading the very same children into a world where their individualization is increasingly important. To this end the same family uses the toy to isolate, solitarize, educate and instill notions of progress and achievement in the child. Parents and educators place a major focus on toys as educational, though parents who have their own bonding in hand, and have less time than teachers, stress the solitarizing role of toys more than the co-operative role. Teachers riven by class management problems and the anarchy of children with whom their relationships are relatively superficial, not surprisingly look for toys to induce co-operation. Parents again live in a world where the marketplace dictates fashions for children as well as the labels of appropriate child growth in clothes and toys, and some of their buying represents their willingness to conform to these dictates for either their own or their children's welfare. Thus the toys that are to bond and to educate are also to merely entertain. Finally, in giving children increasingly complex toys to enhance their autonomy and mastery in a complex world, the parents also, in part, surrender control of their children to these very technologies, which in turn instigate in parents further apprehensions about losing control over their children's lives.

In every sense, then, as toys are at the center of children's play today, so they inherit the various pressures that the society brings to bear upon the family. Some academic theorists such as Freud, Peller & Winnicott, and Erikson, have concentrated on the role of play and toys in family intimacy.[2] Others have focussed on the role of play and toys as instruments of novelty (Berlyne, Hutt, Ellis & Scholz). Yet others have focussed more on their role in individual growth (Piaget, Fein, Bruner, Singer, Lieberman, Saltz and others). What we have here is a conflict between the teddy bear, the race car, the jigsaw puzzle, and the video game, although it is never totally clear that their humanoid, technological, educational or entertaining functions are really that separable. Usually a toy must be associated with words, or numbers of items of information, for the consumers to be sure that it is indeed educational, though in recent years much effort has gone into persuading parents that even toys that involve sensory motor manipulations also involve intelligence and the acquisition of knowledge. Most of the toy buying by adults has to do with their wish to surround their children with the images if not factotums of achievement, and they are increasingly persuadable that almost anything is educational. Clearly it is easier to see how toys have become the center of all these social pressures than it is to answer which ones they best satisfy. The lack of research on toys together with the individuality of their use in children's play makes it difficult for us to be sure what is going on.

What we have hopefully accomplished in this work is to show how very different are toys when seen in the context of family (as potentially objects of solitariness, loneliness and consolation); of technology (as object of autonomy or heteronomy); of education (as objects of achievement, co-operation and progress); and of the marketplace (as objects of novelty, distraction or information). I do not want to suggest that there is any resolution of these contraries. In fact much of the "madness" of the attitudes in the first chapter is due to the supposition of their advocates that modern social phenomena can be treated in a simplistic fashion. On the contrary we all need to be able to bond and to be able to be solitary—not one or the other but both. We need appropriate heteronomy and appropriate autonomy. We need the ability to be idle and the ability to achieve, the ability to be consumers as well as able to glean information from that which we consume. If our life is concentrated at any of these polarities, then, in the case of the first, we become hopelessly dependent or hopelessly alienated; in the second, we have a mechanistic attitude toward fate or a rigidly independent one; in the third, become dilettantes or workaholics; in the fourth, give ourselves over to total consumer passivity or to intellectual isolation. The point of the book is that in multifarious ways toys are mediating these cultural conflicts within the personal lives of children. It is not so much what the toy does by itself, but in what way it gives the child an instrument with which to express and manipulate the cultural forces that bear upon him or her. With the toys he can in his or her own way speak to the issues of bonding by close affection for the toy; of autonomy by control over the toy; of heteronomy by following its schemes and suggestions; of education by discovering how it works; of entertainment by enjoying its marvels; of consumer pleasure by knowing it has public image or status and of novelty by discovering the unrevealed novelties it contains. In addition, I hope that I have been able to show that when children are immersed in play in any one of these contexts with its own contextual probabilities of meaning, there is still the possibility of at least any one of eight play attitudes prevailing. These involve the child having in mind, unwittingly, as he or she plays, the attitudes of random fatefulness, usefulness or uselessness, flexibility or deception, childish triviality, childish idyllism, creative imagination, novel exploration or humanoid projection; always supposing, of course, that these historically developed ideas of play prevalent in the adult world have actually penetrated the young child's mind in some way, or alternatively, are accurate diagnoses of what is there in the first place.

If we remember, as well, the possibility that toys themselves are received on any of three levels, as toys of acquaintance, toys of age- and sex-stereotype, and toys of identity, the difficulties of simplistic interpretation multiply considerably. (These alternatives were presented in Chapter 12.) If we add, further, the complexity and evasiveness of play, the way it masks its intentions from outsiders, its paradoxical and primitive nature (as described in Chapter 10), the possibilities of interpretation become even more difficult.

Despite all these difficulties, however, it seems possible that some general characteristics of toys can be asserted.

Universals of Toys and Play

We begin with the assertion that toys are usually, though not always, *miniatures*,[3] and that these miniatures vary from those which perfectly resemble that which they signify (as in adult collections of trains, cars, dolls, etc.) to those which are quite schematic and convey only the salient traits of those objects they signify (as in most children's baby dolls or plastic motor cars) to those which distort or have little realistic signification whatsoever (as in Monsters from Outer Space, or "slinkies" or "Yo-Yos" or "Slime"). In general the toys of the realistic kind are more frequently to be found in adult collections, and those of the non-realistic kinds in the playrooms of children, though this distinction in usage is never complete. Still, when children are given the "perfect" or "realistic" kinds of toys, we presume they may be told more often to look at them and not to play with them in case they get broken, whereas they may be more often allowed to do what they will with their own childish forms.

The second major characteristic of toys, as a result of their being miniatures, is that they are in *marked contrast* with the everyday world which they represent, or to which they refer, or in which they have their existence. They are markedly different from that world, and this contrast has, throughout history, made them objects of special attention, even of awe. Sometimes that attention has been of a sacred or religious character, as when they are used as facsimiles of real life objects and placed in the tombs of the dead to accompany them into the next world; sometimes that attention has been of a magical character, as when they are used to gain power over others whom they are supposed to represent, in which case it is said that what one does to the miniature will happen to its source of origin. In our own day, the special attention to toys is to regard them only as objects of play. Perhaps religious, magical or playful attitudes all share a perceptual sense that there is something different about miniature objects, which contrast so strangely with everyday life. With young children we highlight this contrast in order to make sure that the salient perceptual features of the toys are perceived clearly. We make these schematic features of dolls' faces and plastic trucks very simple, as in cartoons, or like caricatures, or like jigsaw puzzles, particularly those toddler puzzles which have the edges painted black. This way we facilitate a quick grasp of their meaning by strongly separating the objects from their usual background of everyday life. By such contrasts we make the "figure" stand out clearly from the backgrounds which might confuse them.

Being both miniature and schematic adds to the surface uninterpretability of toys. Being miniatures, for example, makes them more likely to be subject to interior thoughts than to external restraints. It has even been suggested that the smaller the scale the greater the escape from the restraints of the reality to which it refers. Thus very small miniature trains are much more subject to imaginative characterization than are large miniature trains.[4] Similarly, the schematic character of toys, though it may render them simple to perceive, also makes them easier to construe in internal terms. This is another way of saying that the clear contrast between the toy and that which it signifies, so necessary so that we do not mistake it for the everyday world, it also the agent of its free reinterpretation.

However, in addition to this, toys are most often (though not universally) used by children as a part of their own play. And play is one of the least interpretable of human affairs. We have already shown that play's schematic nature subordinates it to internal feelings and defies external fascimilization. Clearly, toys with their own schematic shapes also lend themselves to the free interpretations of play.

What we need to realize is that whatever the type of play, it is partly because the toy is a schematic and familiar signal that the players can treat it in their own preferred way. If we have a real and complex object or a new and complex "toy," it is not usually played with at first. It is too novel and too strange for play. It has to be explored and understood in as intelligent a way as possible. Only when the object has become familiar can we quickly make it into a vehicle for our play. The toys' simplicity, mentioned earlier, presumably helps this process of quick understanding. The toys' simplicity also allows it to be subsumed to the players' own causes, to be "assimilated" to the players' own fantasies. Play as a kind of assimilation of objects to the subjective world of the players always has this potentiality for retreating increasingly from their original response. Thus the toy car, first used as a car, may soon begin to be used as a ship in the sandbox, if that is what is needed, or as an airplane, if that is all there is at hand. As we have seen, the younger the child the more likely the object is to be used for its declared purpose (as a car), but it is not in the nature of play to abide such restrictions for long. Children who play together for any length of time develop their own private systems of communication and become increasingly unintelligible to outsiders. They develop their own *community of fantasy and play* and can easily signal to each other in ways with which others are not familiar. Similarly, within this domain, toys, like players, can retreat from everyday reality into the fantasies of their players, so that whoever made them, and for whatever purposes, no longer has a full purchase on the final action. For children it is their motivated action with these symbolic vehicles (cars and dolls), rather than the things themselves, which constitutes the nature of play. So that whatever toys may have originally signified to their makers (in plastic or in wood), when children play with them this signification is often destined to be betrayed.

When we interpret toys, therefore, as the authors of the quotations cited in the introduction to this work do, it behooves us to realize that like play, toys inherit an implicit duality. The nature of the toy alone cannot tell us whether the player will use it largely to mimic nature or largely to parody it or both. Will the plastic doll be used for mothering or to make mock of mothers? The toy itself cannot tell us, but our knowledge of play shows us that play's excitements derive from both following the cultural rules for behavior and defying the cultural rules.

It may be for this reason also, that throughout history there has always been so much *argument about what play is proper and what play is improper*. By and large the kings and the clergy once sought to maintain those kinds of play (archery, horseback riding, etc.) that would prepare their people for battle or work, and sought to restrict or make illegal those kinds of play that would interfere with those other functions (such as soccer, with its dangers to life and limb, or handball, with the noise it caused to church services as the ball bounced about the church walls). And in our day, teachers similarly have struggled to enhance what they considered co-operative play within their nursery schools and have sought to prevent the noisiness and aggressiveness of superhero play in the same place.

On the national level we have encouraged team sports and Olympic athletics, which bring us international repute, and discouraged cock-fighting and sometimes even Bingo or lotteries, which are the pursuits of immigrants and the poor and bring us no repute. So, just as some forms of games, sports and festivals are thought by some people to be improper and by others to be proper, so it is that some toys are thought by some to be improper and by others to be quite educational. In general, that which is approved is that which imitates the customs or the beliefs of those who would control the society, and by and large that which is not approved is that which represents the beliefs of some group other than one's own. Thus, in the quotations that initiated this book, the plastic, closed and complete toys are abhorred because they stand for a bourgeois way of life which the authors detest; while the wooden, open and incomplete objects of wood and sticks and stones are approved because they stand for the innovative possibilities of which these authors approve. But as our argument shows, what children finally do with these is beyond those predictions. And indeed it is the nature of play that children will engage with toys in such ways as to increase their own autonomous excitements by manipulating their world of fantasy in ways that, in the same act, both mimic and defy reality. Being paradoxical means that play is always both *of* its own society and *beyond* it at the same time. It seems to be the nature of play, games, sports and festivals, therefore, that they are among the more open and fluid of human realities, within which it is more easily possible to express our desires and our contradictions in ways that are not possible within the conventional boundaries of society. In fact, one supposes that in play we may express what we may not express elsewhere; and that, by disguising our expressions as play, we make them more socially acceptable. If this theory of play is correct, and if it is also correct to think of the character of toys as meant to be vehicles for such play, then clearly what we would expect of toys would be that they would be variously interpreted at different times and places throughout history. Furthermore, we would expect that even in modern times, which is the focus of this work, their bipolar nature—as approved, disapproved and as truth and fiction, as mechanical and as labile, as proper and improper, as mimicry and parody, would lend them to multiple and conflicting interpretations.

Our theory then is that play is deceptive; it is a vehicle for antithetical purposes. It is the primitive communication system par excellence through which you can express and communicate all the longings, furtive wishes, glorious dreams, hopeless fears, that cannot be expressed in everyday arrangements. Animals do it and we do it. Play is that sphere of differentiation and deviance which is the most universally available. It is play's very nature to assert a difference, an antithesis, an opposition, and not to be tied either to everyday protocol or even to the realities that are inherent in the toy as a signifier (toy car) or to the reality it signifies (real automobile) out there. In play, more than anywhere else, apart from madness, the player can escape the usual orthodox links between signs and their referents. In play, the significance of what is going on may come as much out of the minds of the players as out of the objects in their hands or the world to which those objects refer.

Summary

With all of this in hand, therefore—four domains, eight ideological interpretations, three kinds of toys, the slipperiness of toys and the quixotic character of play—how is it possible for sophisticated people to argue that wood or plastic toys have this or that specific effect, or that Barbie dolls dull the mind, or that anatomically correct dolls inculcate sexuality, or that toy guns increase our readiness for war, or that the Cabbage Patch doll is a slur on adoption, or that sexist toys stereotype. Any and all of these are among a myriad of possibilities and may claim some small portion of the variance of actual behavior along with a dozen other associations that one cares to make.

The point of this book is clearly that, as we enter a culture through one tiny vantage point, one small peep hole, much else comes into view. Toys, apparently the most minimal of our concerns, turn out to be intimately related to many larger cultural patterns in the family, technology, schools, and the marketplace. Toys echo these other patterns, and yet, as vehicles of intelligence and of play, they also have their own impact in myriad ways, all of which are much more deserving of our social scientific concern than has hitherto been the case.[5]

Appendix

Notes

CHAPTER 1: Introduction: The Mad Hatter Kingdom of Toys

1. Brian and Shirley Sutton-Smith: *How to Play with Your Children (and When Not To).* (Hawthorne, 1974; available through Dutton).
2. This information comes from "*The Toy Industry Fact Book*" of the Toy Manufacturers of America, Inc., 200 Fifth Avenue, New York, NY, 10010. This association represents 230 out of an estimated 800 toy companies in the U.S. and about 90% of total toy sales. During the years 1974–1977 I was research consultant to this organization, reviewing for them the state of psychological research on toys.
3. All of the preceding quotes on toy guns are from "Taking Aim on Toy Guns," by William Braden, appearing in the *Sunday Sun* Times (Chicago), May 29, 1983, in the "Views" section, p. 3 and p. 7.

4. An interview with Robin Moore, Editor, *International Playground* Association Newsletter, VIII (7), January 1981, pp. 8–11.
5. "F.T.C. Drops Consideration of Rule on Children's RV Ads," by Michael de Courcy Hinds, *New York Times*, October 1, 1981.
6. Rose K. Goldsen, Toys and the Imagination of Children, *Human Behavior*, December 1976, pp. 16–23.
7. Quoted in Joyce Wadler, "Dolls in Toyland," *New York Post (magazine section), December 6, 1975, p. 23.*
8. Rhoda Amon, "Those TV Action Dolls: Heroes or Villains," *Newsday, Garden City, New York, November 24, 1976, pp. 3–5.*
9. See *The Toy Industry Fact Book* (op. cit.). See also the Consumer Product Safety Commission's *A Toy and Sports Equipment Safety Guide*. This guide, according to the Toy Manufacturers Association Bulletin #121, October 2, 1980, contains eight chapters, which cover the following subjects: (1) Toys in general; (2) Electrically Operated Toys and Children's Products; (3) Bicycles; (4) Tricycles; (5) Mini-bikes and Mini-cycles; (6) Roller Skates and Ice Skates; (7) Skateboards; (8) Sleds, toboggans and snow disks.

    The booklet reminds consumers that the CPSC currently enforces toy regulations relating to the following: (1) Elimination of SHARP POINTS and SHARP EDGES in toys and other articles intended for children under eight years of age; (2) Prevention of electric shock and burn injuries from ELECTRICALLY OPERATED TOYS AND CHILDREN'S PRODUCTS; (3) Elimination of SMALL PARTS in toys intended for use by children under three years of age; (4) Elimination of PACIFIERS and BABY RATTLES small enough to lodge in a baby's throat and ensuring that they will not come apart into small pieces; (5) Prevention of the sale of LAWN DARTS in toy stores and toy departments, and the requirement that they be labeled to indicate their puncture hazard; (6) Keeping CLACKER BALLS from shattering or flying off the ends of their cord; (7) Banning ALUMINIZED POLYESTER FILM KITES, which can become entangled in power lines and cause electric shocks; (8) Preventing hearing damage from excessively LOUD TOY CAPS and TOY GUNS; (9) Banning the use of POISONOUS AND OTHERWISE HARMFUL CHEMICALS in toys and other articles intended for use by children. Chemistry sets and other products designed for other children, which by their very nature must contain chemicals, may be sold, however, if accompanied by instructions and warning labels; (10) Limiting to less than 0.06% the amount of LEAD IN PAINT used in toys and other children's articles.

    A case for these regulations was originally presented in Edward M. Swartz, *A book about the dangerous toys we manufacture and buy for our children and what can be done about them.* Boston: Gambit Inc., 1971. Over 100,000 toy related injuries were reported to the Consumer Product

Safety Commission in 1983, according to Pamela Hollie in "Seeking Safe Toys that Sell," *New York Times*, Sunday, February 10, 1985, p. F4.

10. Quoted from Roland Barthes' *Mythologies*. New York: Hill & Wang, 1972 (original 1957), pp. 54–55. Quoted with surprise because in general my work is also a work about narratives or mythologies along the lines proposed by Barthes himself. However, although I am criticizing the simplicity of what Barthes says about wood, his own major interest is in the bourgeois ideology, which is supported by using plastic to incite consumer desire.
11. Quoted from "The child and play. Theoretical approaches and teaching application." Educational Studies and Documents. Paris: UNESCO, 1980, p. 11.
12. See my *History of Children's Play. The New Zealand Playground 1840–1950*. Philadelphia: University of Pennsylvania Press, 1981.
13. See, for example, my *Folkstories of Children*. Philadelphia: University of Pennsylvania, 1981.
14. The data for this study is in part *historical*. What has irritated me about almost every work of toy history that I have read, and there are many of them, is that they are only about toys themselves, as if toys have little connection whatsoever with the civilizations and the cultures of which they are a part. Mostly, however, I have drawn on the literature of *child psychology* which is my own primary discipline and with which I have the greatest familiarity. In addition, I report from two empirical studies, one with children from the age of two to twelve years, and the other from the abundant anecdotal reports of my own college students. I think my approach should indicate, however, that I am mainly concerned with toys as a cultural form of communication. They are like words which we use to mean things to each other. Play is a form of human communication and so are toys. I intend, therefore, for the impact of this book to be as a kind of *anthropology*: hence my title TOYS AS CULTURE.

CHAPTER 2: The Toy as Bond and Obligation

1. Statistics on toys are taken from the *The Toy Industry Fact Book* (op. cit.).
2. The gradual change of American festivals into family festivals is noted by Roger Abrahams, in *Events: A poetics of everyday life*. Cambridge, Mass: in press.
3. The theory of festivals presented here, i.e., that they are responses to and assuagements of, social conflict is found in the "social drama" theory of expressive culture, advanced by Victor Turner in several books, including: *Dramas, fields and metaphors*, Ithaca, NY:Cornell Univ. Press, 1974; and *Celebrations: Studies*

in festivity and ritual, Washington, DC: Smithsonian Press, 1982.

4. The notion of the gift exchanging introduced here is well known in anthropology and particularly associated with M. Mauss, *The Gift*, London, Cohen & West, 1954.
5. The informants referred to in this and subsequent chapters are my undergraduate and graduate students of the past 10 years from Columbia University, New York University, and the University of Pennsylvania. Unless otherwise specified, they are young people, usually female, in their twenties. Based on a largely female sample, the reports probably give more weight to indoor toys than would be the case from a largely male sample. Girls are more confined in their play opportunities than boys and as a result often end up by paying more attention to such toys than do boys although paradoxically boys are given more kinds of toys as gifts. These anecdotes are used here, however, for illustrative purposes only. A book of historical, psychological and informant interpretations, it attempts to form hypotheses; the scientific testing of these matters with more systematic accrual of data must come afterwards. The names of the students who assisted with the inquiry are listed at the end of the notes. Where particular reports have been used, names and some details have been changed to ensure privacy. I am particularly grateful to the students for the enthusiasm with which they entered into our discussions and their clear elucidation of the relevance of these matters in their lives.

CHAPTER 3: The Toy as Solitariness

1. Life in the crowded Middle Ages and the way in which children played alongside adults is illustrated in Philipe Ariés, *The Centuries of Childhood* (New York: Knopf, 1964).
2. A critic of the way in which toys increase children's solitariness is Michael Lewis, a leading researcher in showing how early infants are interested in social activity with other children. See, *for example, Friendship and Peer Relations*, M. Lewis & L. A. Rosenblum (Eds.),(New York: John Wiley & Sons, 1975).
3. This is a point of view that one finds exemplified in Michael Foucault: *The Order of Things: An Archeology of the Human Sciences*. New York: Random House, 1970; though my own first glimpse of it was A. N. Whitehead: *Science and the Modern World*. (Cambridge: Cambridge University Press, 1946).
4. Children have tradionally been the playthings for other children. Their life has been a social, not a solitary concern. See Thomas S. Weisner and Ronald Gallimor, My Brother's Keeper: Child and Sibling Caretaking, *Current Anthropology*, 1977, *18*, #2, 169-190.

5. The examples of children using sacred objects as their toys are from C. Levi Strauss, *Triste Tropique* (New York: Atheneum, 1874), 183; and Roger Caillois, *Man, Play and Games*. Glencoe, IL: Free Press, 1958), 58.
6. Differences in the play lives of boys and girls in tribal societies are studied in Beatrice B. Whiting & John W. M. Whiting, *The Children of Six Cultures: A Psycho-cultural Analysis* (Cambridge, MA: Harvard University Press, 1975); and in Helen Schwartzmann. *Transformations: The Anthropology of Children's Play* (New York: Plenum Press, 1978).
7. *The Journal of Psychohistory* is edited by Lloyd de Mause (2315 Broadway, New York, NY 10024). The book providing the basis for these statements is entitled *The History of Childhood* (New York: Psychohistory Press, 1975).
8. John Bowlby is the leading figure in the study of attachment. His books are: *Attachment and Loss* (vol. 1), *Separation, Anxiety and Anger* (vol. 2), *Loss, Sadness and Depression* (vol. 3), (New York: Basic Books, 1968, 1973 & 1980).
9. All the quotations on Rousseau are cited by William Kessen in his article "Rousseau's Children," *Daedalus*, *107*, 3 (1978) 13-26.
10. The historical remarks are derived from various sources, chiefly from Lawrence Stone, *The Family, Sex and Marriage, England 1500-1800* (New York: Harper Books, 1977), but also from J.H. Plumb, "The Great Change in Children," *Horizon*, 1971. Highly recommended also, particularly for its pictorial content, is Anita Schorsch, *Images of Childhood: An Illustrated Social History* (New York: Mayflower Books, 1979).
11. The experts we have in mind throughout this chapter are various. But most centrally we are referring to the work generated by Environmental Programs Incorporated at Baltimore. This project for the practical investigation of the impact of environments, specifically toys, on children was initiated by Dr. Chase and set forth by him in a number of publications, such as: "Design of Learning Environments for Infants," in S. T. Margulis, R. A. Chase & R. B. Bechtel (Eds.), *Privacy: Social Ecology: Undermanning Theory*. (Washington, D.C.: Environmental Design Research Associates, 1975); and the design of play materials for infants in R. Chase, M. Williams & J. J. Fisher, "Design Research and Methods," *DMG DGS Journal*, 7, 4 (1973), 294-305. The firm of Johnson & Johnson also sponsored a series of seminars on child development, bringing together experts from all over the country, from which series issued various scholarly publications, including my own: *Play and Learning* (New York: Gardner Press, 1979). In addition, the firm supported the development of three volumes for parents: *The First Wondrous Year*; *Your Toddler*; and *Your Preschooler*—massive works which include several thousand photographs per volume and offer probably the best-researched practical advice currently available on child-rearing. Furthermore, Johnson &

Johnson went on to market a series of Child Development Products, toys for the first year in particular. As all of this work originated with Richard Chase, we can assume that the books, the photographs, and the toys are the culmination of 15 years of research and thought. When one combines research and practical advice, however, cultural values ensue. It is best, therefore, to look at these books and the endless array of photographs as an anthropological statement of what some "experts" were advocating at a given time and place in American history. That is the way the Environmental Programs, Inc., material is approached in this book. I am assuming that Dr. Chase and his colleagues have done their job well in assimilating the current opinion in child developmental research and in transforming it into a number of statements useful for parents at this time in this society.

12. S. Twardosz, F. Cataldo & T. R. Risley, "Infants' Use of Crib Toys," *Young Children* (July 1974), 271–176.
13. Even artists, when they make sculptures or paintings for children, tend toward the same romanticism. See, for example, Sutton-Smith, *Art for Young Children* (Philadelphia: Please Touch Museum, 1982).
14. Another major source of ideas about toys has been Burton L. White, who is one of the very few researchers on child development concerned with the effects and character of the objects to which a child relates in the earliest years. He has many publications but is most accessible in *The First Three Years of Life* (New York: Prentice-Hall, 1975). One of his colleagues has written a useful practical book for parents based on their observations over the years: Barbara Kaban, *Choosing Toys for Children* (New York: Schocken Books, 1979).
15. The inveterate nature of children's curiosity has been written about and experimented with by many psychologists. A major original source is Dan E. Berlyne, *Conflict, Arousal and Curiosity* (New York: McGraw-Hill, 1962). A useful study of the way in which different kinds of children play with different kinds of toys is Robert B. McCall, *Exploratory Manipulations and Play in the Human Infant* (Monographs of the Society for Research in Child Development) *39*, 2, 1974.
16. Burton White, ibid.
17. For example, C. O. Eckerman & J. L. Whatley, "Toys and Social Interaction Between Peers." *Child Development*, 1977, *48*, 1645–1656.
18. Cited in R. E. Herron & B. Sutton-Smith, *Child's Play*, New York: Wiley & Sons, 1971.
19. J. M. Hendrickson, P. S. Strain, A. Tremblay & R. E. Shores, "Relations between toy and material use and the occurrence of social interactive behaviors by normally developing preschool children." *Psychology in the Schools*, 1981, *18*, 500-504.
20. H. R. Quilitch & T. R. Risely, "The effects of play materials on social play," *Journal of Applied Behavior Analysis*, 1973, *6*, 573-578.

CHAPTER 4: The Toy as Consolation

1. This publicity release was obtained from Harshe-Rotman and Druck, public relations firm for the Toy Manufacturers Association, 1974.
2. The leading theorist on transitional objects has been D. W. Winnicott. See *Playing and Reality* (New York: Basic Books, 1971). An earlier article—a study of the part played by specially loved objects and toys in the lives of certain children—is Olive Stevenson & D. W. Winnicott, "The First Treasured Possession," in *The Psychoanalytic Study of the Child* (New York: International University Press, 1954).
3. Research on the power of the attachment to the blanket is found in Richard A. Passman & Paul Weisberg, "Mothers and Blankets as Agents for Promoting the Play and Exploration by Young Children in a Novel Environment: The Effects of Social and Nonsocial Attachment Objects," *Developmental Psychology*, (1975), *11*, 170-177.
4. Alan M. Beck is quoted in Jane Biberman, "Companion Animals," *Pennsylvania Gazette*, *79*, 8, (June 1981): 18–25. John M. Roberts, Professor of Anthropology, University of Pittsburgh, developed the idea that in the family we may solve our ambivalences to real family members whom we are not allowed to love (eroticize) too much or hate (brutalize) too much, but must treat in a more neutral center-of-the-road manner, by displacing the extreme onto dogs. We can tickle their stomachs or put them out in the snow, both actions being "good" for them.
5. On imaginary companions, we cite Martin Manosevitz, Norman M. Prentice & Frances Wilson, "Individual and Family Correlates of Imaginary Companions in Preschool Children," *Developmental Psychology*, *8*, 3, (1973), 72–79.

CHAPTER 5: The Toy as Machine: Video Games

1. For a summary of the various evolutionary views about the role of tools in evolution see Stephen Jay Gould, "Genes on the Brain" in the *New York Review of Books*, June 30th, 1983, p. 5–10.
2. Our source for the history of techonology was Carlo M. Cippolla and Darel Birdsall, *The Techology of Man*. (New York: Holt, Rinehart & Wilson, 1979). For the first machines and their impact on public awe and public entertainment, see F. C. Haber, "The cathedral clock and the cosmological clock metaphor." In J. T. Fraser & N. Lawrence (Eds.) *The Study of Time*, II (New York: Springer-Verlag, 1975).
3. See, for example, David S. Landes, *Revolution in Time: Clocks and the Making of the Modern World*. (Cambridge: Harvard University Press, Belknap Press, 1983).

4. For the effect of the new change in scale in ways of perceiving, particularly among the Dutch artists of the time, see Svetlana Alpers, *The Art of Describing* (Chicago: University of Chicago Press, 1983).
5. The dispute between Descartes and Pascal is described in Carl J. Friedrich, *The Age of the Baroque, 1610–1660* (New York: Harper Torchbook, 1962).
6. Recent popular accounts of the rise of the machine image of man in the 17th century can be found in J. Bronowski, *The Ascent of Man* (Boston: Little, Brown, 1973); and James Burke, *Connections* (Boston: Little, Brown, 1978).
7. The legend of Descartes as a toymaker is quoted in Antonia Fraser, *A History of Toys* (London: Spring Books, 1966), p. 115. It is the best general survey available to this author.
8. The theory of games presented here is based on empirical work of a cross-cultural nature I did with John M. Robert, Mellon Professor of Anthropology, University of Pittsburgh. Our conflict-enculturation theory of games has appeared in B. Sutton-Smith, *The Folkgames of Children* (Austin, TX: University of Texas Press, 1971).
9. For a history of the effects of printing and its linkages to modern-day computers, see Elizabeth L. Eisenstein, *The Printing Press as an Agent of Change* (London: Cambridge University Press, 1979).
10. Information on the computer and video games has been greatly assisted by collaboration with game inventor Bernard De Koven, author also of the book, *The Well Played Game* (New York: Dover, 1978). Arguments over the future of computers appear in many sources, including Seymour Papert, *Mind Storms, Children, Computers and Powerful Ideas* (New York: Basic Books, 1980); and Joseph Weitzenbaum, *Computer Power and Human* Reason: From Judgment to Calculation (San Francisco: W. H. Freeman, 1976).
11. Bernard De Koven was a trifle upset by my negative way of describing the video game as a defense against a computerized world, and he wrote as follows, nicely illustrating the excited and optimistic mood among those in the forefront of this new revolution:

> Re the contention that videogames are a response to human fear of machines, I disagree. I prefer your concept of an "adaptive potentiation" interpretation of that success. I think we are preparing ourselves for a new stage of development, and that the skills we seek to master in videogames will be essential to the skills we will need for survival in the "technoverse" of ten years from now. I think that the human love of machines is, in fact, a stronger source of the fascination than human fear. Yes, I'm certain one could effectively argue the existence of a love-hate relationship with the machine, but the love side of it must be legitimized before that

relationship can be defined. The sales history of home computers is a case in point. In reality, the majority of humanity can hope to derive only eventual benefit from owning a personal computer. The actual 'personal' needs served by the personal computer are currently few and for the most part trivial. On the other hand, them days is coming! Soon, inevitably, barring major catastrophe, those persons who have become computer-friendly will have access to more resources than the computer illiterate. So useful will the computer be, so profligate the value, that those who rise to personal power will be the computer-assisted. In the meantime, there are the toy computers to buy. Any computer that came before the kilomegabyte hand-held computer is a toy. It can't do what the grown-up computers will be able to do, but, in the meantime, it's really fun to play with, and that play is proving very satisfying, even productive. People are experiencing a genuine renaissance of play. People are finding that, with computer assistance, they can not only process words faster, but also make music and painting. What they can play with now is only the pale shadow of the depth of control they will eventually have access to. And, in the meantime, they are playing and acknowledging the fact that they are playing, without shame, and with a remarkably wonderful toy.

12. Much of the information in these pages is derived from attendance at the world's first Video Game Conference held at the Harvard Graduate School of Education, May 24–25, 1983. Particularly influential were speakers B. David Brooks, University of Southern California; Patricia Greenfield, of U.C.L.A.; Tom Malone, Xerox Research Center, Palo Alto; and Edna Mitchell, Mills College. The conference results are published in *Video Games and Human Development: Research Agenda for the 80's* (Cambridge, Harvard University, Monroe C. Gutman Library, 1983). A first book on the subject covering much of the same territory is *Mind at Play* by G. R. Loftus and E. F. Loftus (New York: Basic Books, 1983); the approach of these authors is that of psychologists. See also more recently Patricia Greenfield "*Mind and Media: The Effects of Television, Video Games and Computers.*" Cambridge, Mass: Harvard Univ. Press, 1984. I wish to thank also my son Mark Vaughan Sutton-Smith who makes his living as a video game inventor, and has been a most valuable consultant for this chapter.

CHAPTER 6: The Technology of Infant Toys

1. The survey of toys was a sample of three journals: *Child Development, Developmental Psychology* and the *Journal of Experimental Child Psychology*; was carried out by Susan R. McBride, of the University of Delaware, College of Education; and is entitled "The Culture of Toy Research." It is reported in

Alyce Taylor Cheska (Ed.), *Play as Context* (West Point: Leisure Press, 1981), pp. 20–218. It was originally a paper given at the annual meeting of the Anthropological Association for the Study of Play, a heterogeneous group of play researchers, who meet annually to share their research.

2. A useful survey of the work on playground environments is Joe L. Frost & Barry L. Klein, *Children's Play and Playgrounds* (Boston: Allyn & Bacon, 1979). Of those who have studied children's play, very few have worked rigorously with environments. Exceptions to this generalization are the following (although the concerns of these are not with natural environments, but with experimentally arranged ones). D. E. Berlyne, *Conflict, arousal and curiosity* (New York: McGraw-Hill, 1960). M. J. Ellis & G. J. L. Scholtz, *Activity and Play: Children.* Englewood Cliffs, N.J.: Prentice-Hall, 1978.

   When "natural" environments are studied as in the excellent L. Yarrow, J. L. Rubinstien & F. A. Pederson Infant and Environment (New York: Halstead, 1975), it is again in terms of abstract variables like variety, responsiveness and complexity. The effects that are discovered are quite specific and tend not to relate to other social variables, except that the provision of complex toys is associated with the development of exploratory behavior. Systematic examination of particular toys and particular reactions would certainly be a useful next step in the development of our understanding of toy technology.
3. Piaget has written between 30 and 40 books, but the one most relevant to the development of the object concept in infancy is *The Construction of Reality in the Child* (New York: Basic Books, 1954).
4. Making the very young imaginative in our own image is I, believe, an error made in an otherwise useful book, John and Elizabeth Newson, *Toys and Playthings* (New York: Pantheon/Random House, 1979).
5. Information about institutional deprivation can be surveyed in any modern text, although I would recommend Howard Gardner, *Developmental Psychology* (Boston: Little, Brown, 1982).
6. For a more detailed account of the philosophy that objects make a difference and have been much neglected in the modern thinking, we recommend an exciting book on how people value the objects in their own homes, Mihaly Csikszentmihalyi & Eugene Rochberg-Halton. The subtitle is *The Meaning of Things: Domestic Symbols and the Self* (London: Cambridge University Press, 1981). This work is the major influence on our writing in these few pages.

CHAPTER 7: The Toy as Infant Tool

1. Maya Pines, "Baby, You're Incredible," *Psychology Today,*

February 1982, 48-53. Daphine M. Maurer & Charles E. Maurer, "Newborn Babies See Better Than You Think," *Psychology Today*, October 1976, 85-88. "Bringing up Superbaby," *Newsweek*, March 28, 1983.

2. The suggestions for games with infants come from Brian and Shirley Sutton-Smith, *How to Play with Your Children (and When Not To)* (New York: Dutton, 1974). It is of interest that what many people reacted to with pleasure in this book was the suggestion "when not to" and the permission it implied to leave babies alone. Perhaps the prior chapters provide some explanation for that sentiment. The experts' desire to have the parents play with the children is counteracted by the parents' need to leave the child to its solitary self and to have some solitariness for themselves also.
3. Howard Gardner and his co-workers in Project Zero at Harvard University (a project that studies child development in the arts and in creativity) have explored some of the individual differences in babies. They have distinguished between children who are mainly interested in objects and those who are mainly interested in people. Unfortunately, their sample is very small and the children themselves change between these two kinds of interests as they get older. The differences are there but not very consistently so. See Howard Gardner, Jennifer M. Shotwell & Dennis Wolf, "Exploring Early Symbolization: Styles of Achievement," in B. Sutton-Smith (Ed.). *Play and Learning* (New York: Gardner Press, 1979), 127-156.
4. The study of one ten-week-old infant in a crib for several days is hardly a very massive amount of information. That one must quote it here shows the paucity of descriptive data. This innovative study is Sandra Twardosz, Michael F. Cataldo & Todd R. Risley, "Infants' Use of Crib Toys," *Young Children* (July, 1974), 271-176.
5. Burton L. White, *The First Three Years of Life* (New York: Prentice-Hall, 1975.)
6. See Chapter 3, footnote 11.
7. The remarkable transformation of communications for brain-injured persons by use of the computer has been reported by Dr. William Lynch, Director of Brain Injury Rehabilitation Unit, Veterans Administration Hospital, Palo Alto, California. Similar work using Logo (a computer program) with children is reported by Dr. Sylvia Weir, Principal Research Associate, Educational Computing Group, Laboratory of Computer Science, Massachusetts Institute of Technology.
8. For an indictment of the "hurry up" world of modern parenting, see David Elkind, "*The Hurried Child: Growing up Too Fast and Too Soon*. (Boston: Addison-Wesley, 1981). Professor Elkind is at Tufts University, Medford, Mass.
9. The work of Piaget that gives his description of the baby's development in the first 18 months of life is *The Origins of Intelligence*. (New York: International University Press, 1952).

10. My emphasis here on the conjoint nature of "self" and "other" understanding in the infant derives from phenomenological philosophy, particularly as reviewed by Alexandra Hepburn in "The Interpretive Turn in Social Science." Ph.D. dissertation, University of Pennsylvania, 1983. I was earlier influenced to think in this direction when listening to a lecture by Daniel Stern of the Cornell Medical Center in New York, given at the University of Pennsylvania on December 2nd, 1980, on the topic of the self and the other in infants.
11. The famous case of the baby with no limbs who developed quite normal cognition makes it difficult to be too dogmatic about the necessity of having limbs in order to develop. It also challenges those kinds of theories that suggest that your own action on reality is the only basis of your knowledge. Apparently, in these cases, just seeing things happen can alone be a sufficient basis for the ultimate growth of understanding.
12. The market research cited is by the NPD Special Industry Service (of NPD Group of Marketing and Research), which sends, to people in 48 states, questionnaires that include questions about toy buying. The sample is said to be representative. As people do not tell everything they buy this group believes their estimates to be about 50% less than what was actually purchased, and they increase their own estimates accordingly.
13. *Infant Development Guide*, edited by Richard Chase, et al., (Johnson & Johnson, Baby Products Company, 1978).
14. Barbara Kaban. *Choosing Toys for Children*. (New York: Schocken Books, 1979).
15. Burton L. White, *The First Three Years of Life*. (New York: Prentice-Hall, 1975).
16. Michael Lewis & Jeanne Brooks-Gunn. *Social Cognition and the Acquisition of Self.* (New York: Plenum Press, 1979).
17. "Giggle, Tickle and Cooche cooche coo" was the name of a paper written by Dr. Leland Van den Daele who experimented with a mechanical tickling device and its effects on the infant (unpublished, Columbia University, 1975).
18. The empirical study entitled "Early Home Environment and Changes in Mental Test Performance in Children from 6 to 36 Months" is by Robert H. Bradley and Bettye M. Caldwell. *Journal of Developmental Psychology*, 1976, 12, pp. 93–97. The items listed here are only a part of the scale. They do not appear in the original article but were kindly loaned by the authors.

    Other writers who appear to have demonstrated a relationship between the infant having a variety of play materials and being cognitively advanced are summarized in Allison Clarke-Stewart, "Interactions between Mothers and their Young Children: Characteristics and Consequences." *Monographs of the Society for Research in Child Development*, 1973, *38*, #6-7, pp. 1–108. Subsequent to writing the above lines I attended the Johnson & Johnson Pediatric Round Table #11: *Play Interactions: The contribution of play materials and Parental Involvement to Child Development*" held in Key Biscayne, Florida, October, 1984, edited by Catherine C. Brown and Allen W. Gottfried and published by Johnson & Johnson in 1985. In this symposium there were various reports on studies of the relationship between the provisions of toys and the development of the child's intelligence, in particular by Robert H. Bradley of the University of Arkansas, Allen W. Gottfried of the California State University at Fullerton, and Theodore Wachs of Purdue University. Their application of the Bradley and Caldwell appropriate play materials scales, in a number of different samples, would seem to confirm that such appropriate toys have a consistent if small effect upon the development of intelligence. More importantly this effect increased with age over the first several years suggesting that parents increasingly mediate their relationships to their children through the provision of such material phenomena. As there is evidence that they also do this with reading material with development over the first several years, the findings take on some credence.

19. Myrdene Anderson, "Tools and Toys: Cultural Styles of Implementation," paper presented at the Ninth Annual Meeting of the Canadian Ethnology Society, Vancouver, B.C. May 8–11, 1982. Dr. Anderson is professor of Anthropology, Purdue University. What we have said about tools in this chapter has focussed on the child's functional learnings. Anderson, however, reminds us that the earliest learnings are also heavily emotional, a point we take up in Chapter 12. With some irony she emphasizes that the toy-tool relationship involves the symbolic distinction between gender differences. The female organ is a toy, a pet, a furry thing, a pussy, a beaver, a mouse and like all the soft toys discussed earlier. The male organ is a tool, a rod, an arm, a shaft, a screw, and boys play with such instrumentally similar toys as aerplanes, cars, rockets, sleds, and footballs. Anderson goes on to contend that there is more emphasis on boys' toys being "tool like" and girls' being "toy like" in these terms. Although there are references in psychoanalysis to a relationship between tools and sex organs, and the possibility that the substitution of toys for a direct interest in one's own erotic zones and capacities is the most important underlying psychodynamic story in Toys and Culture, these suggestions have hardly yet been presented as a generally convincing account of human development through toys. Still the point of view is not without promise. In these terms the gifts of bonding of Part I, would be substitutions meant to keep the child in a state of sexual immaturity, preoccupied with toys not organs. For thought along these line we can recommend Jacques Lacan, *The Four Fundamental Concepts of Psychoanalysis* (New York: Norton, 1973).

CHAPTER 8: The Toy as Achievement

1. The idea of progress, central to this work and to children's toys, is a quite recent one in human history, according to most sources.

See *The Idea of Progress: An Inquiry into Its Growth and Origin*, by J. B. Bury, New York: Dover, 1982; first published, 1932.

2. Contrasts between the "primitive" and the "civilized" are inescapable, even though they are often masks for nostalgia or romanticism; to know that there have been other cultures, other tribes is to consider that perhaps their "experiment" in human nature was a better one. Given the thousands of other cultures that have existed, there has to be some home for every dissident elsewhere, or some home for a part of dissidence in the soul. Books which play up the advantage of the primitive life are: J. Chertas & R. Lewin (Eds.), *Not Work Alone: A Cross-Cultural View of Activities Superfluous to Survival* (Beverly Hills, CA: Sage Publications, 1981); Stanley Diamond *In Search of the Primitive: A Critique of Civilization* (New Brunswick, New Jersey: Transaction Books, 1984).
3. Remarks on the history of toys in this chapter rely chiefly on John Brewer, *Childhood Revisited: The Genesis of the Modern Toy*, and Evelyn Weber, "Play materials in the curriculum of early childhood," in Karen Hewitt & Louise Rommet (Eds.), *Educational Toys in America, 1800 to the Present* (Burlington, VT: The Robert Hull Fleming Museum, 1979), 3–10 and 25–31. It is a remarkable indication of historical change, that Rousseau, a philosophical opponent of Locke, also advocated a solitary education. Probably the most comprehensive work on toy history to date, from a German and with an educational perspective, is Hein Retter, *Spielzeug* (Weinheim: Beltz Verlag, 1979). I am indebted to historian Dr. David Hogan, Professor at the Graduate School of Education, University of Pennsylvania, for his help with historical materials.
4. For some earlier and sacred usages of play, Michael Salter's writings about American Indian games are particularly useful. See, for example: "Meteorological Play Forms of the Eastern Woodlands," in Philip Steven (Ed.), *Studies in the Anthropology of Play* (New York: Leisure Press, 1977).
5. Arousal theory is associated with the name of Daniel Berlyne, *Conflict, Arousal and Curiosity* (New York: McGraw-Hill, 1962). The research referred to here, however, is M. J. Ellis & G. J. L. Scholtz, *Activity and Play of Children* (Englewood Cliffs, NJ: Prentice-Hall, 1978).
6. L. S. Vygotsky. *Mind in Society* (Cambridge: Harvard University Press, 1978).
7. Erikson's books relevant to toys are *Childhood and Society* (New York: Norton, 1950); and *Toys and Reasons* (New York: Norton, 1977).
8. That play can be dysfunctional is shown in Robert Fagen, *Animal Play Behavior* (New York: Oxford University Press, 1980).
9. This cynical view of sports can be found in Gary Goodman, *Choosing Sides: Playground and Street Life on the Lower East Side* (New York: Schocken, 1979). The cynical view of the "playway" is to be found in Michael Katz, *Class, Bureacracy and Schools* (New York: Praeger, 1976). Along similar lines is B.

Sutton-Smith & D. Kelly-Byrne, "The Idealization of Play," in Peter K. Smith (Ed.), *Play in Animals and Humans* (London: Basil Blackwell, 1984).

10. For play therapy, see C. E. Schaefer, *Therapeutic use of child's play* (New York: Jason Aronsen, 1970).

CHAPTER 9: Toys as the Child's Work: The First Year

1. Richard R. Rubin, John H. Fisher, III, & Susan G. Doering, *Your Toddler, Ages One and Two*, (New York: MacMillan, 1980), the second of the Johnson & Johnson Child Development Publications, is the successor to the Infant Development Guide discussed in the prior chapter, both originating from the earlier work of Richard Chase.
2. Burton L. White & Jean Carew Watts, *Experience and Environment*, 1 (Englewood Cliffs, NJ: Prentice-Hall, 1973). In the index to *The First Three Years of Life* Burton White refers to playgroups and playpens but otherwise does not discuss play. In the earlier work with Jean Carew Watts, the index includes "play with toys, as activity dimension," but again the definition of play is not dealt with directly.
3. Robert McCall, Exploratory Manipulation and Play in the Human Infant. *Monographs of the Society for Research in Child Development, 39*, 2 (1974).
4. For a survey of the history of the treatment of play (and its general neglect), see R. E. Herron & Brian Sutton-Smith, *Child's Play*. (New York: John Wiley, 1971). This work covers play research in this century up to 1970. For the earlier years and variety of historical attitudes to play in America, I strongly recommend Bernard Mergen, *Play and Playthings: A Reference Guide* (Westport, CT: Greenwood Press, 1982). The first psychology text to give a complete chapter to play is Howard Gardner, *Developmental Psychology* (Boston: Little, Brown, 1982), which also gives a chapter to children's art, making this text an anomaly among psychology texts at the same time that it is one of the outstanding competent pieces of scholarship in this highly competitive area.
5. This discussion—of whether babies play—was much assisted by Diana Kelly-Byrne's skepticism on this matter, as she incidently observed her own infant, Megan, during the two years immediately prior to this writing. Dr. Kelly-Byrne's other opinions on play are to be found in B. Sutton-Smith & D. Kelly-Byrne, *The Masks of Play* (New York: Leisure Press, 1983).
6. J. S. Bruner & V. Sherwood, "Early Rule Structure: The Case of 'Peek-a-boo'," in R. Harre (Ed.), *Life Sentences* (New York: John Wiley, 1976), 55–62.
7. While most psychologists would perhaps resist this explicit introduction of a literary figure as an analogy for play, it probably has

more justification in the history of human behavior than some of the usual analytic categories that may seem to have a more operational ring to them. Terms like goal oriented, or means oriented, behaviors derive their apparent sense from the metaphors of how animals function within evolutionary theorizing. So in using "bathos" as our metaphor, this is not a choice of literature over science, but of which metaphors convey the most adequate complexity and is the most suggestive for further research.

8. I am thankful to Susan Schwartzman for the clarification of this point in her *Transformations: The Anthropology of Children's Play* (New York: Plenum Press, 1978).
9. A mistake which some have traced to platonic epistemology.
10. These points are taken from Howard Gardner's discussion of multiple intelligences, a paper presented to the American Psychological Association, Division 10, Psychology and the Arts (Toronto, Canada, August, 1984).
11. G. Bateson, *Steps to an Ecology of Mind* (New York: Ballantine Books, 1972).
12. B. Sutton-Smith & D. Kelly-Byrne, *The Masks of Play* (New York: Leisure Press, 1984).
13. We may summarize some of the features of play outlined within this chapter in the following diagram. In addition I have added some attention to antecedent variables and to functions—not dealt with in the text.

Features of Play

Contextual conditions that facilitate onset of play	*The paradoxical framing*	*The dialectical structure*	*The functions of play*
Protected setting Lack of adaptive emergencies (relaxed state) Lowered state of arousal Light hearted mood Ludic modelling by another Customary high degree of stimulation Inhibition of realistic activity	*play signals* play faces voices (iconic) objects (toys) acts (exaggerated; novel) roles (caricatured) places (stadia) times (recess) *play negotiations* of control of actions and	*rule violations* the special licenses of play, e.g., power intensity (hilarity) expressiveness (joy) impropriety *Rule inductions* play routines turn taking games, sports, etc.	archaic communication & sharing of non-normative behavior, feelings and thought Probable consequences involve generation of optimism and skill facilitation

Prior periods of exploration & mastery Residual conflicts within players	establishment of play hierarchy	*Play excitement* anticipation and climax as dependent upon the contrast between what is violated and what is induced (the external dialectic) and between the forces of order and disorder within what is induced (the internal dialectic)

14. Roberta Collard, "Exploration and Play," in B. Sutton-Smith (Ed.), *Play and Learning* (New York: Gardner Press, 1979).
15. E. Erikson, *Toys and Reasons* (New York: Norton, 1979).
16. Other important sources of information about the kinds of child activities in the first year are R. B. McCall, *Exploratory manipulation and play in the human infant*, Monographs of the Society for Research in Child Development, *39*, #2 (1974); L. Fenson, J. Kagan, R. B. Kearsley & P. R. Zelazo, "The developmental progression of manipulative play in the first two years," *Child Development*, *47* (1976), 232–236; and J. Belksy & R. K. Most, "From Exploration to Play: A Cross-sectional Study of Infant Free-Play Behavior," *Developmental Psychology*, *171*, 5 (1981), 630–639.

CHAPTER 10: Play and Work After Infancy: The Second Year

1. Evidence for parent play with children, with differences between mothers and fathers, is to be found in publications by R. D. Parke and colleagues: R. D. Parke & S. J. Suomi, "Adult Male-Infant Relationships: Human and Non-human Primate Evidence," in K. Immelman, G. W. Barlow, L. Petronovich & M. Main (Eds.), *Behavioral Development* (New York: Cambridge University Press, 1981); T. G. Power & R. D. Parke, "Play as a Contact for Early Learning: Lab and Home Analyses," in L. M. Laosa & I. B. Sigel (Eds.), *The Family as a Learning Environment* (New York: Plenum Press, 1983).

2. White's is a small sample and no doubt relative to time and place, but the results are striking, nevertheless. These are normal healthy children by American standards.
3. A point well made in Lorraine Rocissano, "The Emergence of Social Conventional Behavior: Evidence from Early Object Play," *Social Cognition, 1* (1982), 50–69.
4. F. Fein, "A Transformational Analysis of Pretending," *Developmental Psychology, 11* (1975), 291–296. The same result was found earlier by I. Ivic and V. Davidovic of Yugoslavia using Vygotsky as their theoretical base and reported in "The Structure of Child Thinking and Play of the Child," *Psihologija*, 1972, 1-2, a.
5. E. Mueller & J. Brenner. The origins of social skills and interaction among play group toddlers. *Child Development*, 1977, *28*, pp. 854–861.
6. Catherine Garvey, Professor of Psychology, University of Maine, Orono, has written many articles on children's play. These are most accessible in her popular work, *Play* (Cambridge: Harvard University Press, 1977). Since then, there has been considerable research on how children get into each other's play spheres. A recent summary is Artin Goncu & Frank Kessel, "Analysing Children's Play Dialogues," *New Directions for Child Development* (San Francisco: Jossey Press, #25, September, 1984).
7. There is probably an argument to be made for the full-scale development of a performance theory of child development. Every culture has its performances, and their reality is well-described and attested to in many works. They all include techniques for training the new members and provide us with a quite different basis for socialization theories than is usually used. See Richard Schechner, *Essays in Performance Theory* (New York: Drama Book Specialists, 1977).
8. The abilities mentioned here are adopted from Howard Gardner, *Frames of Mind* (New York: Basic Books, 1983).

CHAPTER 11: The Toy as Novelty

1. The New York study, which was a class project, has been reported, in part, already in "Toys for Object and Role Mastery," in Karen Hewitt & Louise Roomet (eds.), *Educational Toys in America: 1800 to the Present* (Burlington, VT: Robert Hull Fleming Museum, 1979). I am grateful to my wife, Shirley Sutton-Smith, for the lengthy work she did in summarizing and quantifying the interviews and observational material in this study.
   The study of 88 parents was conducted by members of a Human Development Course at Teachers College, Columbia University, New York, over two years, 1975–1976. Each interview was conducted by a separate student, with the available parent and the child. The categories in a seven-category scale of denoting socioeconomic status were: 1) executive and professional; 2)

proprietor and business manager; 3) administrative; 4) clerical and sales; 5) skilled manual; 6) machine operators; and 7) unskilled. The representation was as follows:

1)	0
2)	14
3)	42
4)	17
5)	2
6)	5
7)	2

Over three-quarters of the families were intact; one-third had "only" children; one-third were two-child families; 20 percent, three-child families; and the rest, larger. Half were suburban and the other half urban. Mothers worked in 50 percent of the families. Half had incomes under $15,000; half, over $15,000. The average amount spent on toys was said to be $100 to $150 per year.

2. Daniel G. Brown, Sex-role Preference in Young Children, *Psychological Monographs, 70* (14) (1956), (whole number 421). Ruth E. Hartley & Francis B. Hardesty, "Children's perceptions of sex-roles in childhood," *Journal of Genetic Psychology, 105* (1964), 43–51; Dale E. Marcus, *A Cognitive Developmental Investigation of Sex-role Development in Children* (Temple University, 1976, unpublished doctoral dissertation); Dale E. Marcus & Willis F. Overton, "The development of cognitive gender constancy and sex role preferences," *Child Development, 49* (1978), 434–444; B. G. Rosenberg & B. Sutton-Smith "The Measurement of Masculinity and Femininity in Children: An Extension and Revalidation," *Journal of Genetic Psychology, 104* (1964), 259–264.

   I wish to express my appreciation to my advisee Andrew Behrend for organizing this material this way in his own studies of male-female play differences.

3. The study of toys in bedrooms is Harriet L. Rheingold & Kaye V. Cook, "The Contents of Boys' and Girls' Rooms as an Index of Parents' Behavior," *Child Development, 46* (1975), 459–463.

4. We are indebted to Ted Erikson, Pres., Toy Mfgrs. Assn. (1976) for this information. The table is extracted from a larger statistical newsletter explaining in detail the sources, etc., issued by the TMA on December 20, 1976. The notes included the following: Stuffed dolls must be considered together with the categories above it because there was no uniformity in classifying dolls with soft torsos and vinyl heads and limbs. There is not a distinguishable line drawn between sports-oriented action games and other games and puzzles. Battery toys and mechanical toys have been consolidated to conceal privileged information.

   About 80% of model kits as reported above represent static plastic models of the kind sold in toy departments. Handicraft and hobby kits is so broad a category that its specific contents cannot be ascertained.

Companies are not in agreement as to which grades of microscopes and telescopes to include in science toys. Some companies have put all preschool toys into the preschool category.

Others have entered here only those that do not fit other categories. Other children's vehicles may be understated because some vehicles that are ridden have been reported in preschool. Parts were not included in the list because it is felt that these would be counted twice if they were.

5. These lists are derived from those supplied by N.P.D., Special Industry Service, Fort Washington, New York, to the PLEASE TOUCH MUSEUM of Philadelphia as guidance for the Annual Toy Exhibits which are now being held at that Museum. The best selling toys of the year are being collected and exhibited as part of an on-going collection of contemporary culture. I owe special thanks to Portia Sperr, Director, and Donna Horowitz, Curator, for their assistance in developing these lists. I function as a Research Director for these and related play projects at the Museum.
6. My attentions was called to this possibility by Dr. Diana Kelly-Bryne, Director of the program in child culture and literature at the University of Pennsylvania, who in her visits to children's museums contends that she observes the great extent to which parents constantly tear their children away from one interest to go look at another, as if the job of the museum is to show the children as many things as possible, but not ever to introduce them to an enduring interest in any one thing. So that even in museums where children are meant to "play," their parents are constantly distracting them from that possibility.
7. My thinking about all of this was sharpened by acquaintance with sports sociologists Richard Gruneau and Alan Ingham, with whom I had the pleasure of debating the relationships between play and sports at the 1982 Conference on Sports at the University of Brisbane, Australia, prior to the Commonwealth Games. Gruneau's views are published in his book: *Class, Sports and Social Development*. Amherst: University of Massachussetts Press, 1983. In passing, I would like to note my final respects for my 40-year-old New Zealand colleague Kent Pearson, who organized this conference but who died as a result of his participation in a Triathalon shortly thereafter.
8. These statements are from Thomas S. Robertson, "The impact of television advertising on children," *Wharton Quarterly*, Fall, 1972, pp. 38–41. The research on advertising being quoted here is drawn from a number of researchers including: Thomas S. Robertson & John R. Rossiter, "Short run advertising effects on children: a field study," *Journal of Marketing Research*, 1976, *13*, pp. 68–70; Thomas S. Robertson & John R. Rossiter, "Children and commercial persuasion: an attribution theory

and analysis," *Journal of Consumer Research*, 1974, *1*, pp. 13–20; John R. Rossiter & Thomas S. Robertson, "Children's television viewing: an examination of parent-child consensus," *Sociometry*, 1975, *38*, #2, pp. 308–326; National Science Foundation. "Research on the effects of television advertising on children: review and recommendations," 1977, NSF Grant #Apr 765 75-10126; and T. G. Bever, M. L. Smith, B. Bengen & T.G. Johnson, "Young viewers' troubling response to television advertisements," *Harvard Business Review*, November, 1975, #53, *6*, pp. 109–120.

CHAPTER 12: The Toy as Agency

1. Barthes says that toys prefigure the adult world and constitute for the child the "alibi of nature" which is a value-laden environment to which the child becomes accustomed before he begins to reason. *Mythologies* (New York: Hill & Wang, 1972), p. 54.
2. Greta Fein, Professor at the University of Maryland, has taken a leading role in research on the relationship between toys and pretending. A current article which surveys all of this material and advances its own support is: Copple, C. E., Cocking, R. R., & Matthews, W. S. Objects, symbols and substitutes: The nature of cognitive activity during symbolic play. In T. D. Yawkey & A. D. Pellegrini. *Child's Play: Developmental and Applied*. New Jersey: Lawrence Erlbaum, 1984, pp. 105–124.
3. Seymour Papert. *Mindstorms; Children, computers and powerful ideas*. New York: Basic Books, 1980.
4. Sutton-Smith, B. *The folkstories of children*. Philadelphia: University of Pennsylvania Press, 1981.
5. Arnheim, R. *Art as visual perception*. Chapter 4 on growth. Berkeley, California: University of California Press, 1954.
6. Sutton-Smith, B. *The folkgames of children*. (Austin, Texas, 1974).
7. Gombrich, E. H. *The sense of order*. (Ithaca, NY: Cornell University Press, 1979).

CHAPTER 13: The Idealization of Toys

1. Many of the following historical reflections are derived from an excellent article by M. Spariosu, entitled "Literature and play: History and principles, method." in M. Spariosu (Ed.) *Literature, mimesis and play*. (Tübingen, West Germany: Gunter Narr Verlag, 1982, pp. 13-52).
2. Snow, E. "Meaning" in *Children's Games* on the limitations of the iconographic approach to Breughel. *Representations*, 1983, *I*, #2, pp. 27–60.

3. Wheelock, A. K. Games in Dutch art: Innocent pleasures or moral exemplars. Paper presented at the conference on the *Forms of Play in the Early Modern Period*. University of Maryland, 1984.
4. In these remarks I am very much indebted to M. Beaujour, "Delayed Replay: The Renaissance of mimicry and representation" and T. M. Greene, "Ceremonial play and parody in Renaissance literature," both papers presented at the conference *Forms of Play in the Early Modern Period*. University of Maryland, 1984.
5. One finds a faint echo of this Renaissance view in the modern socialization theory of George H. Mead in *Mind, self and society*. (Chicago: University of Chicago Press, 1934), within which the child at play and games is learning his or her multiple selves. What Machiavelli advocates in a cynical way for public practice, however, Mead presents in all seriousness as an inevitability for child play and games, and child development. Machiavelli receives a closer representation in that other (than Mead) symbolic interactionist Erving Goffman, whose work, *The Presentation of Self in Everyday Life*, (New York: Doubleday, 1959), is sometimes interpreted as unravelling the cynical character of modern social arrangement.
6. Jack Zipes, *Fairy tales and the art of subversion*. (New York: Wildman Press, 1983).
7. These matters are detailed in my paper: "Play theory of the rich and for the poor" in P. Gilmore and A. A. Glathorn (eds.), *Children in and out of school*. (Washington, D.C.: Center for Applied Linguistics, 1982). They are also covered in more detail in: Mergen, B. *Play and playthings: A reference guide*. (Westport, Connecticut: Greenwood Press, 1981); Goodman, G. *Choosing Sides. Playground and street life in the Lower East Side*. (New York: Schocken Books, 1979); Cavallo, D. *Muscles and morals: Organized playgrounds and urban reform 1880–1920*. (Philadelphia: University of Pennsylvania Press, 1981).
8. Schiller, F. *On the aesthetic education of man*. (New York: Frederick Ungar, 1965).
9. In particular by J. Singer, *The child's world of make believe*. (New York: Academic Press, 1973);and N. Lieberman, *Playfulness: Its relationship to imagination and creativity*. (New York: Academic Press, 1979).
10. Huizinga, J. *Homo ludens*. Boston, Mass: Beacon Press, 1955.
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CHAPTER 14: Conclusion

1. In the sense of Roland Barthes in *Mythologies.* New York: Hill and Wang, 1972 (1957). Though we take exception to Barthes on wooden toys in the introduction to this book, we do not take exception to his general semiotic approach, which this book illustrates in its own way.
2. The theoretical references throughout this conclusion can be pursued in my book with R. E. Herron, *Child's play.* New York: John Wiley & Son, 1971; or more recently in *Play and learning.* New York: Gardner Press, 1979.
3. We note the very different perspective one gets if dealing only with the adult end of this spectrum in Susan Stewart's remarkable work *On Longing: Narratives of the miniature, the gigantic, the souvenir, the collection.* Baltimore: Johns Hopkins University Press, 1984. While the basic metaphoric dialectic in the present work is that of determinism and freedom, in her work it is mortality and immortality. Clearly this work looks forward and hers looks backward, as the title "On Longing" implies. My toys are a kind of liberation, hers are a kind of nostalgia. It is the difference between Tom Sawyer and Peter Pan, a dialectic in its own right, but implies also that the present writer has been caught himself almost inescapably and unwittingly in ideology number VI, the idealization of childhood. One can hardly assert the kind of freedom that I have asserted for children in this work without trespassing into such idyllism.
4. Ibid, p. 66.
5. I list below the names of students who have made oral or written contributions to this work, without which I could hardly have proceeded, but whose privacy I have sought to preserve as best I can. At the University of Pennsylvania I teach two courses in which these students worked with me on these matters. They are *Children's Folklore* and *Child Development Through Play*,

Games, Toys and Sports. The University of Pennsylvania is one of the few academic institutions in my experience which positively encourages interdisciplinary work. They bear no responsibility, of course, for my achievement or the lack of it in this work. And at New York University I taught an invitational course called *The Rhetorics of Play*. I particularly want to thank Richard Schechner and Barbara Kirschenblatt-Gimblett for the invitation to teach the course and Richard for his physical and intellectual hospitality throughout. I owe the University of Pennsylvania my thanks for a half year sabbatical that permitted me to get the writing done as well as my colleagues in the Graduate School of Education and the Department of Folklore for their intellectual stimulation throughout. Finally I owe my wife much gratitude for carrying me through the final stages of the manuscript.

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